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Editors:

Mirosław Przygoda, Lana Lovrencic Butkovic, Elzbieta Szymanska

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TRENDS IN DOMESTIC TERMS OF TRADE OF AGRICULTURAL SECTOR OF PAKISTAN

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ABSTRACT

This study intends to estimate various domestic terms of trade for agriculture sector and further assesses the volatility in the standard of living and profitability of farmers in Pakistan and its provinces. Producer prices indices, consumer price indices, input prices indices and quantity indices were constructed using the data for the period 1990-91 to 2008-09. The domestic terms of trade of agriculture sector has been improved in terms of both approaches i.e. the ratio of producer prices indices to consumer prices indices and the real per capita income approach. However, the cross province estimates indicated that the terms of trade also improved for Khyber Pakhtunkhwa, Sindh and Punjab while Balochistan's domestic terms of trade deteriorated drastically. Using the input prices, the domestic terms of trade deteriorated for Pakistan as a whole and its provinces as well. This also explores that as a whole the profitability of the farmers reduced during the study period. Further, the standard of living of the farmers improved but their profitability reduced, which indicates that the farmers utilize some other sources of income for their livelihood. The study supports to give subsidies on farm inputs so as to improve the profitability of the farmers.

Keywords: *Agricultural terms of trade, farmers' profitability, farmers' standard of living, consumer and producer price indices, quantity indices, Subsidies*

1. INTRODUCTION

The changes in the prices of the agriculture commodities combined with changes in population and agriculture productivity affect farmers' profitability and standard of living. The increase in the agriculture commodities prices not only favours farmers' welfare on one side (Hossain, 2008) but also adversely affect the farmers' budget by paying high prices for agriculture inputs (Ghosh, 1988). Ultimately, this will also affect the state of competitiveness (1) of this sector. The higher profitability in agriculture sector reflects the competitiveness of this sector. The competitiveness may be at cross country level or within sectors in the economy. In Pakistan, about 70% of the total population is living in rural areas and mainly they are dependent on agriculture sector. Any movements in this sector will ultimately alter the standard of living of the farmers in general and particularly farmers' income in Pakistan. This will also ensure to reduce poverty at the gross root level in Pakistan. Because poverty reduction and agriculture development are most closely connected especially in Pakistan. In the year 1990-91, the agriculture growth rate was 5.6% while the rural head count poverty was 25.20% with a total head count poverty of 26.10%. In the year 1996-97, the agriculture growth rate declined to 0.12%. Meanwhile, the rural head count poverty increased to 33.1% and total head count poverty to 29.8%. In 2000-01, the agriculture growth rate was further declined to -2.20%, while the rural and total head count poverty was 39% and 32.1% respectively. Having the same trend, in the year 2002-03, the agriculture growth rate, rural head count poverty and total head count poverty was 4.10%, 38.65% and 31.80% respectively (2).

1 Competitiveness means the ability to compete, higher profitability and aptitude to gain market share (Latruffe, 2010).

2 For details see Chaudhry, Malik and Ashraf (2006); Bhutto and Bazmi (2007).

The agricultural terms of trade vary overtime. For Pakistan, Lewis and Hussain (1967) found that the terms of trade deteriorated for agriculture sector and favored manufacturing sector in Pakistan. The findings of Zahid and Hyder (1986) revealed that the terms of trade were not different under regulated and de-regulated price regimes. Similarly, Ali (2004) studied that the terms of trade of agriculture sector had an upward trend and the profitability of the farmers has increased due to fair prices received by the farmers. The latest study conducted for Pakistan was conducted by Khan and Ahmad (2004) who observed that over the twenty years period the consumer prices increased more as compared to producer prices and the purchasing power of the farmers have relatively reduced. Further, the standard of living of the farmers also worsened. There are also some studies conducted for countries other than Pakistan which have different findings over the status of agricultural terms of trade. Bowman and Keehn (1974) studied the agriculture terms of trade in 4 Midwestern states using the time period 1870-1900. They found that there were no secular movements in the agriculture terms of trade and farm purchasing power in four Midwestern states over the study period. Tyagi (1987) assessed that the net barter terms of trade not only affect the investment in agriculture sector but also the agriculture output. Siregar (2004) measured the changes in the farmers' terms of trade in Indonesia. He found that the farmers' terms of trade showed negative trend in the western part of Indonesia. Similarly, Zhu and Hong (2007) considered the terms of trade as an indicator of the farmers' welfare in China for the time period 1978-2004 and found that there were no secular movements for in the domestic agriculture-industrial terms of trade over the study period. The variation in agricultural terms of trade is also linked with the growth process in the economy as supported by Hazell et al (1995) who studied that during the time period late 1960s and early 1970 in India, 15% growth in output was accompanied by 18% improvement in the agriculture terms of trade. However, Kohli (2004) was of the view that in many countries the real GDP underestimates the domestic real income and welfare because of improvement in the terms of trade. Similarly, Ghosh (1988) stated that the volatility in the intersectoral terms of trade affects growth process and economic welfare in India. Fleming and Fleming (2007) observed that agricultural income can be improved if it has the potential to generate the total factor productivity and the movements should be adjusted with the prices of input and output. No study has been conducted after 2002-03 determining the domestic terms of trade of agriculture sector of Pakistan and this study will bridge this gap. This study utilizes two major approaches for its analysis. Firstly, this sector will be competitive when the agriculture sector is able to consume more or less over time, with the income it has received. This reflects the standard of living of the farmers. Secondly, how much of the prices are received by the farmers at domestic market after adjusting the prices paid by the farmers for agriculture inputs, which reflect the profitability in the agriculture sector of Pakistan. The study is based on the hypothesis that the farmers' standard of living has been improved over time but their profitability has been deteriorated. It shows that they are utilizing additional sources of income supplementing farm income. The present study follows the methodology developed by Khan and Ahmad (2004). However, this study further contributes firstly it determines the domestic terms of trade for agriculture sector for Pakistan and each province as well. Secondly, this study determines the domestic terms of trade only for agriculture sector up to 2008-09 using 1990-91 prices and quantities as base. The base year (1990-91) is appropriate because normal growth rate took place in both minor and major crops sector as against 1983-84. The year 1983-84 was the worsened year for agriculture sector showed a growth rate of -4.82%. The major and minor crops' sector growth rate was -14.30% and 3.38% respectively (Pakistan Economic Survey, 1983-84). While in the year 1990-91, the overall agriculture growth rate was 4.96%. The present study used this year as a base year for computing price and quantity indices. The specific objectives of the present study are to estimate various terms of trade for agriculture sector at both country level and province-wise and to assess the volatility in the standard of living and

profitability of farmers across provinces and at country level.

2. DATA AND METHODOLOGY

The main focus of the study is to assess the trends taking place in the domestic terms of trade of agriculture sector of Pakistan, following the methodology developed by Khan and Ahmad (2004). To this end, the present study utilizes time series secondary data for the time period 1990-91 to 2008-09. The data for the study variables i.e. wholesale prices of major agriculture commodities, their quantities, prices of inputs, real per capita income and population has been taken from Agriculture Statistics of Pakistan (2008-09), Statistical Year Book (various issues) and Economic Survey of Pakistan (2009-10). The prices of cotton have been taken from COTISTICS (Cotton Statistical Bulletin), Cotton Review (various issues). The consumer price index data has been taken from International Financial Statistics (IFS). The data on inputs was mainly taken from Agricultural Statistics of Pakistan (various issues), Agricultural Price Commission (various issues), Pakistan Statistical Year Book (various issues) and National Fertilizer Development Corporation. This study is confined to determine only the domestic terms of trade of agriculture sector of Pakistan at both provincial and country level. Therefore, the following tools have been used.

2.1. Ratio of the index of producer prices to the index of consumer prices

This type of domestic terms of trade measure the volatility in the standard of living of the farmers. For this, two types of indices have been computed i.e. the index of producer prices and index of consumer prices. For producer prices index, the wholesale prices of eighteen agriculture commodities (3) have been used, while for the denominator, the available consumer price index (CPI) (4) has been used. Using 1990-91 as a base year, the following formula has been used to compute the price indices:

$$\text{Price Index} = \sum_{j=1}^{18} W_{oj} \times \left(\frac{P_{ij}}{P_{oj}} \right) \times 100$$

Where j = commodity, i = time i.e 1990-91 to 2008-09, W_{oj} = weight of the commodity j in the base year, P_{ij} is the current year price for commodity j and P_{oj} is the base year price of commodity j . Further,

$$W = \frac{P_{oj} \times q_{oj}}{\sum_{j=1}^{18} P_{oj} \times q_{oj}}$$

where p_{oj} is the base year price of commodity j and q_{oj} is the base year quantity of commodity j . The present study utilizes Laspyres formula which is also proposed by Zahid and Hyder (1986) and Khan and Ahmed (2004). Further, the same formula has also been used to compute the domestic terms of trade for each province in Pakistan. For four provinces the averages of the wholesale prices of major cities have been used (5).

3 The agriculture commodities are Wheat, Rice Basmati, Rice irriI-6, Maize, Gram (Black), Mash (Whole), Mung (Whole), Masoor (Whole), Potato (Red), Onion, Jowar, Bajra, Tomato, Apple, Sugarcane, Guva, Mango and Cotton (Lint).

4 For monitoring the cost of living the farmers, the CPI has been used. Because it measures the overall costs of the goods and services bought by a typical consumer. Alternatively, the CPI shows how the typical family spends more as the CPI increases to maintain the same standard of living (Stonech et al, 2000).

5 For Punjab, the average of the wholesale prices of Lahore and Multan has been considered. The average of the wholesale prices of Hyderabad has been considered for Sindh. Khyber Pakhtunkhwa has been represented by the wholesale prices of Peshawar market while the wholesale of Quetta were used for Balochistan.

2.2. Domestic Real Per Capita Income Terms of Trade

The ratio of the index of producer prices to the index of consumer prices measure the stand of living of the farmers on the basis of prices without accounting for changes in productivity and population. In other words, this will show the effect of changes in production and population on the standard of living of the farmers if they face domestic prices. The real per capita income terms of trade approach adjust productivity and population. The following formula has been used to measure the domestic real per capita income terms of trade for agriculture sector of Pakistan:

$$RPCITOT = (\text{Quantum Index}) / (\text{Population Index}) \times \text{Domestic Terms of Trade}$$

Where RPCITOT is the domestic real per capita income terms of trade of agriculture sector of Pakistan. The domestic terms of trade has been computed as mentioned earlier while the quantum index and population index has been computed using the following formulas:

$$\text{Quantum Index} = \sum_{j=1}^{18} W_{oj} \times \left(\frac{Q_{ij}}{Q_{oj}} \right) \times 100$$

Where j = commodity, i = time i.e 1990-91 to 2008-09, W_{oj} = weight of the commodity j in the base year, Q_{ij} is the current year quantity for commodity j and Q_{oj} is the base year quantity of commodity j . Further,

$$W = \frac{P_{oj} \times q_{oj}}{\sum_{j=1}^{18} P_{oj} \times q_{oj}}$$

Where p_{oj} is the base year price of commodity j and q_{oj} is the base year quantity of commodity j . Similarly,

$$\text{Population Index} = \frac{PN_i}{PP_o} \times 100$$

Where PN_i represents population in the current year while PP_o is the population in the base year i.e. 1990-91.

2.3. Ratio of the Index of Producer Prices to the Prices of Major Agriculture Inputs

This technique shows the profitability in the agriculture sector of Pakistan domestically. It measures how much prices the farmers receive and how much they pay for purchasing the inputs in domestic market. To compute this type of terms of trade, the ratio of the index of producer prices to the prices of major agriculture inputs has been used. The same procedure mentioned earlier has been used to compute the index of producer prices and the index of the prices of major agriculture inputs.

The major agriculture inputs included fertilizer (6), seeds (7), pesticides (8), water (9) and L.D.O (10). However, due to non-availability of the data, the same inputs have not been used for all the provinces.

3. RESULTS AND DISCUSSION

3.1. Domestic Terms of Trade based on Indices of Consumer and Producer Prices

The results given in Table 1, indicates encouraging picture of the standard of living of the farmers in Pakistan. The terms of trade improved in maximum years over the base year. From 1990-91 to 2008-09, except for the years 1991-92 and 1992-93, the index of the producer prices is more than the index of consumer prices throughout the study period, indicating that the prices received by farmers are more as compared to their payments in this sector and further explores the improvement in the standard of living of the farmers in Pakistan. The highest terms of trade in Pakistan has been observed for the year 2008-09 which is 125.37, while the minimum is 97.67 for the year 1991-92 (Table 1). The values of the domestic terms of trade are higher than computed by Khan and Ahmad (2004) for almost all the years in Pakistan. Accordingly the domestic terms of trade in agriculture sector for the year 1991-92, 1995-96, 1999-00, and 2002-03 are 95.13, 92.18, 101.01 and 99.61 respectively. Similarly, the values of the terms of trade are low as compared to values of the terms of trade computed by Ali (2004) for the year 1991-92 and 1992-93 only. The difference is due to selection of the base period, sample period and number of commodities included in the sample. The cross-province volatility in the domestic terms of trade of agriculture sector varies during the study period. In Punjab, the terms of trade deteriorated in the year 1991-92 and 1992-93 only while for the rest of the years, the domestic terms of trade of agriculture sector improved till 2008-09. In Khyber Pakhtunkhwa, the terms of trade deteriorated for the year 1993-94, 1994-95, 1995-96, 1996-97 and 2003-04 only. In Sindh, deterioration of the terms of trade took place for the years 1991-92, 1992-93 and 1993-94 only. In Balochistan, the terms of trade showed worsened condition throughout the study period, showing that the standard of living of the farmers has been deteriorated.

3.2. Real per Capita Income Terms of Trade Approach

According to this approach, for all the years of the study period except 1992-93, the real per capita income terms of trade get improved. It is interesting to note that the real per capita income terms of trade improved for many years and this may be due to firstly higher growth rate in the agriculture production and secondly, the fair prices received by farmers in the agriculture sector of Pakistan. The increase in real per capita income terms of trade over the base year in Pakistan has been shown in Table 2.

6 For fertilizer, the retail prices of N, P and K have been used for Pakistan as well as for provinces. The quantity in the year 1990-91 has been considered as fertilizer consumption in thousand Nutrient Tones of N, P and K in Pakistan. For provinces, the fertilizer consumption of N, P and K has been calculated on the basis of their respective share in area sown.

7 The prices of seed have been considered as the per acre cost of seed in rupees of the crops. The quantity of seed in year 1990-91 has been obtained by multiplying the per acre seed cost for a crop with total area sown under the crop.

8 The prices of pesticides have been obtained through dividing the total value of pesticides by its quantity consumed. For provinces, the pesticides consumption has been calculated on the basis of their respective share in area sown. The consumption includes both local production and imports.

9 Irrigation cost per acre in rupees for wheat, rice, cotton and sugarcane has been taken from various reports of Planning Commission. The quantity for these crops in the year 1990-91 has been obtained by multiplying per acre irrigation cost in rupees with total area sown (000, acres) under these crop. The irrigation cost includes canal, private tubewells, public tubewells and mixed tubewells.

10 For the quantity of light diesel oil (LDO), the total consumption (000, tonnes) in the year 1990-91 has been considered. While the prices in Rs/Tonne have been used for the computation of the price indices. For provinces the same prices have been considered.

The values of the real per capita income terms of trade are lower than computed by Ali (2004) for almost all the years except 1997-98, 1998-99 and 1999-00. The domestic real per capita income terms for agriculture sector of Pakistan computed by Ahmad and Khan (2004) for the year 1992-93, 1993-94, 1994-95, 1995-96, 1996-97 and 1997-98 were 97.39, 106.80, 116.33, 117.85, 115.50, 127.79 which are higher than our estimates. The reason is again selection of the base period, sample period and number of commodities included in the sample. The real per capita terms of trade in Punjab also get improved over the base year for all the years except 1992-93 (Table 2). The table also indicates that the growth rate of production is higher than the population growth rate in Punjab for many years. This combined with high producer prices made benefit the farmers and ultimately improved the real per capita income terms of trade in Punjab. In Sindh, the real per capita income terms of trade shows encouraging situation and except for three years, the real per capita income terms of trade has improved over the base period (Table 2). The real per capita income terms of trade (Table 2) also shows mixed trend and for a few years the terms of trade get improved and this is due to higher population growth rate as compared to production of crops. The most worsened situation is faced by Balochistan (Table 2), in which for a few years the real per capita income terms of trade get improved.

3.3. The Ratio of Producer Prices to the Prices Paid for Major Agriculture Inputs

This approach depicts the profitability of the farmers through measuring the ratio of prices received by farmers to the prices of major agriculture inputs. The results are given in Table 3, showing that the terms of trade has been improved from 1993-94 to 1998-99 only. In these years, the terms of trade is above the base year, while it has been deteriorated in the rest of the years during the study periods. This shows that the profitability of the farmers has adversely affected by the increase in the prices of agriculture inputs during for maximum of the years. The reason of this deterioration is the reduction in the subsidies of the agriculture inputs and also decline in the producer prices in the international market. Same mixed-type of results have been drawn by Khan and Ahmad (2004), but the values differs due to the inclusion of the number of commodities to be included in the compilation in the indices and the base period as well. The cross province domestic terms of trade using input prices, is given in Table 4. In case of Punjab, the terms of trade (profitability of farmers) improved only for six years (i.e. from 1993-94 to 1998-99) while it has been deteriorated for the rest of the years during the study period. The terms of trade for Khyber Pakhtunkhwa improved for the year 1991-92 and 1992-93 and then continuously deteriorated for the next four years. From 1997-98 to 1999-00, the terms of trade again improved but deteriorated for subsequent years upto 2008-09. The most worsened situation happened in Sindh where the terms of trade improved in 1996-97 only while for rest of the years the profitability of the farmers reduced for all of the rest of the years during the study period. Balochistan also not give the good picture and the domestic terms of trade improved only for two years i.e. 1992-93 and 1993-94. The terms of trade drastically reduced for all of the rest of the years and also with higher rate as compared to other provinces.

4. CONCLUSION AND RECOMMENDATIONS

Based on findings of the study, it is concluded that for Pakistan, the domestic terms of trade of agriculture sector has been improved in terms of both approaches i.e. the ratio of producer prices indices to consumer prices indices and the real per capita income approach. However, the cross province estimates indicated that the terms of trade also improved for Khyber Pakhtunkhwa, Sindh and Punjab while Balochistan's domestic terms of trade deteriorated drastically. In other words the standard of living of the farmers in Pakistan and its provinces except Balochistan improved. Using the input prices, the domestic terms of trade deteriorated for Pakistan as a whole and its provinces as well. This also explores that as a whole the profitability of the farmers reduced during the study period.

The farmers pay more prices for inputs as compared to they receive for their produce. This further indicates that the poverty at the gross root level has been increased. Further, summing, the standard of living of the farmers improved but their profitability reduced, which indicates that the farmers do not completely rely on the farm income but also utilize some other sources of income for their livelihood. Further, most of the population in Pakistan is living in rural areas and they mainly rely on agriculture sector. If they get fair prices for their produce, both their profitability and standard of living will be improved. This will also help in reducing poverty in rural areas. This is possible if the government fix support prices not only for wheat but also for other crops as well. The results will further be improved if consumer price index for farmers in rural areas is used. But unfortunately, in Pakistan the CPI by occupation and rural-urban wise is not available. In this study, prices and quantities of only five inputs have been used. If additional inputs are to be included in the estimations, this will reflect the profitability of the farmers in Pakistan and at province level appropriately. Again here is the issue of the non-availability of data. Furthermore, the domestic terms of trade has been computed for Pakistan and its province while it can further extended to estimate the domestic terms of trade at district level in Pakistan. On similar passion the international terms of trade needs to be derived.

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APPENDIX

<i>Table 1: Domestic Terms of Trade through Indices of Consumer and Producer Prices</i>											
Year	Index of Consumer Prices	Pakistan		Punjab		KPK		Sindh		Balochistan	
		Index of Producer Prices	Domestic Terms of Trade	Index of Producer Prices	Domestic Terms of Trade	Index of Producer Prices	Domestic Terms of Trade	Index of Producer Prices	Domestic Terms of Trade	Index of Producer Prices	Domestic Terms of Trade
1990-91	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1991-92	109.51	106.96	97.67	108.22	98.82	117.94	107.70	103.61	94.62	102.61	93.70
1992-93	120.43	119.67	99.37	119.70	99.39	125.13	103.90	117.34	97.43	105.24	87.39
1993-94	135.33	148.54	109.77	157.71	116.54	130.73	96.60	133.92	98.96	107.89	79.72
1994-95	152.03	172.55	113.50	188.07	123.70	149.24	98.17	153.83	101.18	110.56	72.72
1995-96	167.80	184.77	110.11	193.67	115.42	154.32	91.97	168.12	100.19	113.24	67.49
1996-97	186.89	213.51	114.24	224.76	120.26	178.30	95.40	204.55	109.45	115.95	62.04
1997-98	198.53	240.62	121.20	250.36	126.11	266.48	134.22	225.07	113.37	118.54	59.71
1998-99	206.75	249.64	120.74	257.74	124.66	280.89	135.86	235.90	114.10	121.39	58.71
1999-00	215.78	230.39	106.77	238.79	110.66	246.92	114.43	218.42	101.22	124.30	57.60
2000-01	222.58	254.51	114.35	267.98	120.40	243.93	109.59	231.21	103.88	126.87	57.00

2008-09	2007-08	2006-07	2005-06	2004-05	2003-04	2002-03	2001-02
440.11	387.26	321.95	299.21	277.25	254.21	236.60	229.90
551.75	416.18	335.45	305.59	289.21	298.57	260.12	244.94
125.37	107.47	104.19	102.13	104.31	117.45	109.94	106.54
534.89	429.02	349.09	318.81	302.86	323.54	282.27	254.09
121.54	110.78	108.43	106.55	109.24	127.27	119.30	110.52
630.75	454.26	345.34	301.92	284.82	251.73	237.02	249.00
143.32	117.30	107.26	100.90	102.73	99.02	100.18	108.31
542.70	418.04	342.11	315.54	295.55	291.38	249.65	233.62
123.31	107.95	106.26	105.45	106.60	114.62	105.52	101.62
150.92	147.79	144.68	139.23	136.73	135.46	132.90	130.33
34.29	38.16	44.94	46.53	49.32	53.29	56.17	56.69

Table 2: Real per capita income terms of trade in Pakistan

Year	Pakistan				Punjab				Sindh				KPK				Balochistan			
	QI	IP	DTOT	RPCI	QI	IP	DTOT	RPCI	QI	IP	DTOT	RPCI	QI	IP	DTOT	RPCI	QI	IP	DTOT	RPCI
1990-91	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1991-92	112.4	102.6	97.7	107.0	98.8	102.6	114.2	110.0	94.6	102.6	109.3	100.8	107.7	102.6	100.0	105.0	93.7	102.6	119.5	109.1
1992-93	103.1	105.2	99.4	97.4	99.4	105.2	102.2	96.6	97.4	105.2	98.3	91.0	103.9	105.2	101.0	99.8	87.4	105.2	136.0	112.9

2005-06	2004-05	2003-04	2002-03	2001-02	2000-01	1999-00	1998-99	1997-98	1996-97	1995-96	1994-95	1993-94
158.6	160.6	137.3	133.9	127.7	129.5	138.2	126.1	125.0	117.2	121.2	113.3	105.0
139.2	136.7	135.5	132.9	130.3	126.9	124.3	121.4	118.5	115.9	113.2	110.6	107.9
102.1	104.3	117.5	109.9	106.5	114.4	106.8	120.7	121.2	114.2	110.1	113.5	109.8
116.4	122.5	119.0	110.8	104.4	116.8	118.7	125.5	127.8	115.5	117.9	116.3	106.8
106.6	109.2	127.3	119.3	110.5	120.4	110.7	124.7	126.1	120.3	115.4	123.7	116.5
139.2	136.7	135.5	132.9	130.3	126.9	124.3	121.4	118.5	115.9	113.2	110.6	107.9
162.8	168.4	138.9	136.0	128.9	129.7	136.2	118.2	116.6	109.2	116.8	110.3	98.3
124.6	134.5	130.5	122.1	109.3	123.1	121.3	121.4	124.1	113.3	119.1	123.4	106.2
105.5	106.6	114.6	105.5	101.6	103.9	101.2	114.1	113.4	109.5	100.2	101.2	99.0
139.2	136.7	135.5	132.9	130.3	126.9	124.3	121.4	118.5	115.9	113.2	110.6	107.9
144.1	138.2	129.9	126.9	124.0	129.2	148.8	140.0	139.2	130.6	121.4	109.2	116.4
109.1	107.8	109.9	100.8	96.7	105.8	121.2	131.6	133.1	123.3	107.5	99.9	106.7
100.9	102.7	99.0	100.2	108.3	109.6	114.4	135.9	134.2	95.4	92.0	98.2	96.6
139.2	136.7	135.4	132.9	130.3	126.9	124.3	121.4	118.5	115.9	113.2	110.5	107.9
118.5	120.7	115.4	117.8	112.4	108.6	110.7	112.7	113.4	103.5	107.1	105.5	100.8
85.9	90.7	84.4	88.8	93.4	93.8	101.9	126.1	128.4	85.1	87.0	93.7	90.3
46.5	49.3	53.3	56.2	56.7	57.0	57.6	58.7	59.7	62.0	67.5	72.7	79.7
139.2	136.7	135.5	132.9	130.3	126.9	124.3	121.4	118.5	116.0	113.2	110.6	107.9
201.2	1.0	161.3	140.9	140.6	149.6	156.4	186.9	190.7	184.6	189.9	170.4	152.1
67.2	0.4	63.4	59.6	61.2	67.2	72.5	90.4	96.1	98.8	113.2	112.1	112.4

2008-09	2007-08	2006-07
170.1	163.2	167.1
150.9	147.8	144.7
125.4	107.5	104.2
141.3	118.7	120.4
121.5	110.8	108.4
150.9	147.8	144.7
169.9	162.4	173.0
136.8	121.8	129.7
123.3	108.0	106.3
150.9	147.8	144.7
165.9	164.9	147.0
135.6	120.4	108.0
143.3	117.3	107.3
150.9	147.8	144.7
120.7	121.1	122.7
114.6	96.1	91.0
34.3	38.2	44.9
150.9	147.8	144.7
221.1	210.6	208.4
50.2	54.4	64.7

Note: QI is the Quantum Index, IP is the Index of Population, DTOT is the domestic terms of trade and RPCI is the real per capita income terms of trade.

Table 3: Cross Province Domestic Terms of Trade using Input and Producer Prices indices

Year	Pakistan			Punjab			KPK			Sindh			Balochistan		
	IIP	IPP	DTOT	IIP	IPP	DTOT	IIP	IPP	DTOT	IIP	IPP	DTOT	IIP	IPP	DTOT
1990-91	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1991-92	116.6	107.0	91.8	116.8	108.2	92.7	114.1	117.9	103.4	114.7	103.6	90.4	114.3	98.1	85.8
1992-93	125.5	119.7	95.4	125.2	119.7	95.6	122.0	125.1	102.6	124.2	117.3	94.5	122.5	132.5	108.2
1993-94	134.9	148.5	110.2	134.7	157.7	117.1	131.2	130.7	99.6	134.3	133.9	99.8	133.5	136.1	101.9
1994-95	154.3	172.6	111.8	153.8	188.1	122.3	150.4	149.2	99.2	154.4	153.8	99.6	152.4	142.0	93.2
1995-96	176.7	184.8	104.6	176.9	193.7	109.5	169.0	154.3	91.3	176.4	168.1	95.3	174.4	154.1	88.4
1996-97	201.2	213.5	106.1	202.6	224.8	111.0	195.5	178.3	91.2	201.8	204.6	101.4	203.4	172.0	84.5
1997-98	230.0	240.6	104.6	230.6	250.4	108.6	220.6	266.5	120.8	228.4	225.1	98.5	212.2	190.6	89.8
1998-99	238.5	249.6	104.7	239.7	257.7	107.5	228.9	280.9	122.7	237.6	235.9	99.3	222.3	204.8	92.1

2008-09	2007-08	2006-07	2005-06	2004-05	2003-04	2002-03	2001-02	2000-01	1999-00
699.8	554.1	468.1	438.2	403.5	366.4	340.9	323.3	287.9	237.8
551.8	416.2	335.5	305.6	289.2	298.6	260.1	244.9	254.5	230.4
78.9	75.1	71.7	69.7	71.7	81.5	76.3	75.8	88.4	96.9
714.9	569.4	481.2	444.0	416.6	375.9	348.3	330.6	292.0	239.1
534.9	429.0	349.1	318.8	302.9	323.5	282.3	254.1	268.0	238.8
74.8	75.3	72.6	71.8	72.7	86.1	81.0	76.9	91.8	99.9
662.4	511.8	420.6	388.1	330.3	311.5	294.9	278.1	255.2	224.2
630.8	454.3	345.3	301.9	284.8	251.7	237.0	249.0	243.9	246.9
95.2	88.8	82.1	77.8	86.2	80.8	80.4	89.5	95.6	110.1
705.7	549.5	452.3	438.2	376.2	348.7	315.0	296.1	273.6	233.6
542.7	418.0	342.1	315.5	295.6	291.4	249.7	233.6	231.2	218.4
76.9	76.1	75.6	72.0	78.6	83.6	79.2	78.9	84.5	93.5
772.4	578.2	444.8	436.5	350.5	327.8	303.3	275.8	262.8	215.7
490.4	338.0	282.9	257.6	271.3	227.7	194.9	199.6	198.4	179.4
63.5	58.5	63.6	59.0	77.4	69.5	64.3	72.4	75.5	83.2

Note: IIP is index of input prices, IPP is the Index of producer prices, DTOT is the Domestic terms of trade

FROM OFFLINE TO ONLINE: DO SAUDIS CHANGE THEIR INFORMATION SEARCH BEHAVIOUR?

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ABSTRACT

The purpose of this paper is to study and review factors influencing consumers' search behaviour for online shopping in Saudi Arabia. The study reveals that most Saudi consumers use online channels as information sources compared to offline channels. Saudi consumers tend to use online information sources, which appear to be more important than offline channels to them due to the perceived easy availability of goods and services, convenience, information, available services, and time and cost efficiency. The grounded theory is used to gather and explore primary data. The non-probability sampling technique is applied to collect and analyse opinions from respondents representing the population of Saudi Arabia. The researcher used the semi-structured interview technique to understand consumer behaviour towards online shopping. The results of the study identified that the majority of Saudi consumers like using online channels as information sources, which influences them to use online shopping. Factors influencing Saudi consumers to use online channels, and consequently online shopping, include the perceived easy availability of goods and services, convenience, information, available services, and time and cost efficiency. Although most Saudi consumers prefer using online channels as information sources, security concerns make some consumers hesitant about online purchasing. The growth of online technology in the country has great potential, as it minimizes the costs of services and delivery of goods, and easily reaches geographical boundaries bringing consumers and retailers together. Factors like perceived ease of available services and goods, convenience, information, available services, and time and cost efficiency are vital elements in influencing Saudi consumers to use online purchasing. The study concluded that online usage and purchasing is comfortable, easy, and better than offline channels. Research implications: online retailers and the Saudi government should cooperate to enhance consumer awareness towards online shopping, and they should eradicate risks hindering consumers' use of online shopping. Originality/value: The study revealed that many Saudi nationals are interested in online shopping. However, security risks are a concern to some consumers. The Saudi government and online retailers can benefit from the findings of this study and create appropriate strategies to build customer awareness about online shopping.

Keywords: *online channel, offline channel, information search behavior, Saudi consumer*

1. INTRODUCTION

1.1. Problem statement and objective

Unlike offline information sources like magazines, newspapers and TV, the online provides consumers with greater interactive communication as a unique characteristic of the medium (Hernandez, Jimenez & Martin, 2011; Moon, 2004). The examination of how consumers use online platforms as new information sources therefore becomes a remarkable topic for both marketers and researchers (Rowley, 2000; Alam et al., 2014). The growing dependence on the online to search for information is because of benefits such as: low transaction costs, the ability to pool volumes, convenient purchases of related services, and easier access to product and price information. Compared to the era of offline information sources, consumers can more accurately make purchase decisions due to the plentiful information sources on the online platform.

Online channels have played a vital role in our daily life as people can communicate online to a person who is at a distant place, can send emails at anytime, can search information, purchase things online, and even can play games online. At present, online shopping has been broadly acknowledged as an approach to buying services and products (Al-Ghaith, Sanzogni & Sandhu, 2010; Al-Salamin & Al-Hammad, 2014). Eid (2011) identified that online shopping has been recognized to offer more satisfaction to modern consumers seeking speed and convenience. However, some consumers may feel uncomfortable purchasing online. For example, a lack of trust appears to be the main issue that hinders some consumers from purchasing online. Furthermore, consumers may need to feel and examine products, and to meet friends and obtain comments about products before buying. Such factors may negatively influence consumer decisions about online shopping. One of the key reasons for a rapid diffusion of online shopping are perhaps the benefits that the internet offers. The online platform provides convenience to consumers to search information, evaluate, buy, and utilize products more effectively and efficiently than offline channels to satisfy their needs. The online platform can enhance consumer efficiency by enabling customers to get consumer-related information more rapidly, and save money, time and effort while collecting information (Brosdahl & Almousa, 2013; Anderson et al., 2014). Also, the online platform can enhance consumer effectiveness by offering a mixture of text, image, sound and visual tools to improve consumer learning, while assisting consumers to choose products that can effectively satisfy their needs. Furthermore, an online channel is likely to replace offline communications and distribution channels, and evolve as a channel with more potential. To date, no study has examined the impact of online adoption on Saudis changing their information search behaviour. Hernandez, Jimenez and Martin (2011) recognized the influence of the online search on consumer behaviour through every step of consumer decision-making: problem identification, information search, evaluation, purchase, and finally, post-purchase behaviours. Rambo, Liu and Nakata (2009) examined the factors that motivate both marketers and consumers to become involved in online shopping. Hoda, Ahmad and Melibari (2014) studied factors that promote online shopping and presented many consumer related variables like perception of online shopping, lifestyle, purchase habits, and demographic characteristics. Al-Ghaith, Sanzogni and Sandhu (2010) identified factors that influence consumer purchasing intentions through online mediums, such as online usage skills, perceived quality of services, changing attitude toward online usage, involvement, and perceived risk. Past studies partially examined factors that influence consumer-buying behaviour through online mediums or concentrated on the marketer's perspective. Thus, studies that present a detailed analytical approach to understand the factors that influence consumers to adopt online mediums instead of offline channels are scarce (Yuandong, 2005; Ray, Ow & Sung, 2011). Saudi Arabia is a country with impressive, rapid economic growth (Abdul-Muhmin, 2010; Ramady, 2010). It is vital to examine the situation from an academic research context to question what reasons influence the conditions of online shopping in Saudi Arabia (Simsim, 2011). This study may fill the gaps between the choice of offline shopping and online shopping. This research reflects the factors and problems of offline and online shopping. The study will examine why consumers adopt online shopping instead of offline shopping, and examine the main reasons for offline and online shopping. This research helps consumers to obtain ideas about online shopping. In Saudi Arabia, a lower number of people use online shopping compared to other countries. The study offers clarification to consumers about alternatives that should be adopted by consumers to obtain greater benefits. The objective of our study is to build a comprehensive framework to examine factors that influence consumers to choose either online or offline channels for their information search. This study widely compares offline and online shopping. In particular, the objectives are:

1. To evaluate the significant difference between offline and online consumer groups in terms of technology use, attitude, availability, and demographics of the consumer.

2. To assess the factors influencing consumers to abandon offline shopping for online shopping and vice versa.
3. To examine factors influencing consumers to shop solely offline and solely online.
4. To evaluate whether consumers' qualifications affect offline shopping and online purchasing.

1.2. Theoretical background

The process of making decisions is the same whether the consumer is online or offline. However, major differences include marketing, communication and the shopping environment. Based on the traditional consumer decision model, a consumer purchase decision normally begins with need awareness, information search, then alternative evaluation, decision to purchase, and post-purchasing behaviour (Seock & Norton, 2007; Grange & Benbasat, 2014). Based on online communication, when consumers see online promotions or banner ads, such advertisements may attract their attention and motivate their interest for specific products. Prior to deciding to buy, consumers will require additional information to assist them in their purchase decision. Rambo, Liu and Nakata (2009) identified that if consumers do not have adequate information, they will search through online mediums such as search engines, websites, online catalogues and others. At the evaluation stage, the online medium provides a platform to compare different options (Li & Liu, 2014; Heinrichs et al., 2016). In the purchasing stage, information quality, sales service, and product assortment assist consumers in deciding what products they need to choose (Al-Maghribi, Dennis & Halliday, 2011). Lastly, the post-purchase behaviour stage becomes important as sometimes consumers may have a concern or problem about the product, or they may want to return or change the product they have purchased (Brosdahl & Almousa, 2013). External factors of trust and risks affect all the above five stages (Al-Ghaith, Sanzogni & Sandhu, 2010). Abdul-Muhmin (2010) opined that the search process is an important aspect of a consumer's online shopping behaviour. Consumers face risks during the information search and product evaluation since information in websites might contain certain mistakes. They also take risks as they are unable to examine the products before buying (Özgüven, 2011). Moreover, risk is involved in the payment process as customers may be required to provide personal information and their credit card number. Security risks are also seen at the post-purchase stage since customers' personal information might be misused (Haas & Kenning, 2014).

2. LITERATURE REVIEW

Consumers typically make decisions regarding a consumption related information search. Sometimes, such decisions are difficult since there are several alternatives or there is limited time. In particular, taking into consideration the latest, super-diffusion of online channels, consumers must make decisions regarding whether they will search information via online mediums or offline channels (Lloyd et al., 2010), whether they will search information online, then purchase through offline channels, or whether they will search information via offline channels and then purchase online (Brosdahl & Almousa, 2013; Rajagopalan et. al., 2010). Consumers apply a decision-making process to select an option which best fulfils their needs depending on their budget. Typically, the process is made up of five steps such as problem identification, information search, then alternative evaluation, followed by purchase, and lastly post-purchase evaluation. Our study focuses on one step: the information search, which appears to be a vital step in which online channels can provide more consumer effectiveness and efficiency than offline channels. An information search looks for options of product choice. Existing consumer behaviour theories concentrate on the individual consumer's cultural factors, social factors and psychological factors, as important factors that affect consumer behaviour (Lu & Su, 2009; Rahim & Scheepers, 2011).

Moreover, a contingent consumer decision-making model reveals that consumers who have limited capability for information processing, change and adapt their decision strategies to cope with the particular decision-making problems they encounter (Rambo, Liu & Nakata, 2009; Mahmud Mohammadian, 2014). Our study examines consumer behaviour through online channels by building on consumer decision-making theories in a traditional/offline environment, and the effect of the distinctive characteristics of the online channel on consumer behaviour. Regarding studies on an online consumer information search, Saleh (2015) assessed the influence of consumers' characteristics (e.g. internet usage skills) that play an important role in the internet era, and how consumers' knowledge impacts their adoption of online channels. He suggested that factors which influence the usage of IT, such as online consumer information services, show that consumer characteristics, like familiarity with computers, impact upon an online consumer information search. Heinrichs et al. (2016) investigated the effect of consumer understanding, search objectives and menu types of online advertisements, on an online consumer information search. The authors categorized consumer search objectives into continuous search and pre-purchase search. They opined that a consumer information search for healthcare purposes cannot only be explained by the pre-purchase search; they create an alternative search purpose, which is the continuous search. Eid (2011) identified that consumer satisfaction with a website is determined by update frequency, information design, quantity, transmission speed and user-friendliness of the search structure. The author shows that website characteristics influence a consumer information search through online channels. Al-Maghrabi et al. (2011) believed that factors influencing a consumer information search through online channels can be classified into three categories: website characteristics, information search objectives, and consumer characteristics. These factors influence consumers' decisions concerning whether they will utilize online channels or offline channels for their information search. Consumer characteristics can be summed up into five factors such as demographic characteristics, knowledge level, lifestyle, online usage skills, and attitude towards online channels. The information search objective is classified as a pre-purchase search and continuous search. In addition, website characteristics are summed up into five factors such as information access, design, quantity, transmission speed, update frequency and user-friendliness of the search structure (Mansoor & Jalal, 2011). Concerning online consumer purchases, Al-Mowalad and Putit (2012) have categorized products into experience products and search products, based on the source of information of consumer product evaluation. According to Al-Mowalad and Putit (2012), consumers mainly use external information to analyse the search product. Also, they identified that consumers mainly use their own experience to analyse the experience products. They contended that search products are more suitable for distribution through offline channels than experience products. Furthermore, they argued that tangible products are more suitable than intangible products, and that shopping products are more suitable than convenience products for retailing via online channels, taking into consideration the distribution cost. According to Al-Maghrabi and Dennis (2011), the benefits of online transactions, such as convenience and time saving, improve consumer purchase intentions via online channels. Conversely, risks related to online transactions, such as payment and delivery risks, discourage consumers from purchasing via online channels. Song and Shin (2015) considered consumer purchases via online channels as a kind of innovation. They identified that online transaction characteristic variables, such as compatibility, complexity and relative benefits, influence consumers' adoption of online shopping. Makki and Chang (2015) identified that factors that influence the purchase of consumer products through online channels include the benefits of online transactions, risks of online transactions, and product type. These factors influence consumers' decisions concerning whether they will utilize online channels or offline channels to purchase products. The benefits of online transactions include time saving, price advantage, convenience, assortment, and

superior product quality. Regarding the risk of online transactions, Hoda, Ahmad and Melibari (2014) classified purchase method risk (impulse buying, difficulty of comparison, including other purchase risks); payment related risk (transaction and credit card information related risk); service related risk (contract, refunds, delivery related risk); and product related risk (assortment, quality, product, functional risk). An online channel offers the best environment for a synchronized information search and product purchase. This is a vital characteristic that differentiates online channels from offline channels. Consumers search information and are affected by website characteristics, information search objectives, and consumer characteristics, and they can make purchases through online channels. Conversely, the purchase can be carried out through offline platforms, even after customers have searched for information via online channels. In other words, Brodsahl and Almousa (2013) explained that the likelihood that consumers will purchase products via online channels rather than offline channel, after searching information through online channels, can be moderated by the risks of online transactions, benefits of online transactions, and the types of products they intend to purchase. Moreover, product type, and risks and benefits of online transactions, can also influence the chances of online purchases independently and directly. Rambo, Liu and Nakata (2009) said that there are several reasons why people prefer online shopping. For instance, consumers can purchase anything at anytime without travelling to the physical store; they can get the same product at a reduced price by comparing various websites at the same time; sometimes they intend to avoid pressure and queues when meeting other customers and physically interacting with salespeople. These factors can be classified into four categories such as information, convenience, time and cost efficiency, and availability of services and products.

3. METHODOLOGY

3.1. Grounded Theory

The focus of this study is exploratory rather than explanatory. This research study assumes the grounded theory built by Glaser and Strauss (1967) who reasoned that research is primarily a growth of theory or a confirmation of theory through logical reasoning rather than from experimental data. Grounded theory majorly concentrates on systematic qualitative processes for building a theory which explains action, procedure, concepts or interaction about the topic. Charmaz (2014) supposed that the function of exploratory research is to gather preliminary data that facilitates description and suggestion of hypotheses. The data collection method systematically collects information about the respondents. Data can be gathered through sampling methods. Typically, sampling methods are categorized into two types: probability sampling and non-probability sampling (Merriam, 2009; Silverman, 2009). The customers of Saudi Arabia are taken as a population. Normally, the population of Saudi Arabia is too large for an attempt to survey all of its members. Normally, in a non-probability sampling technique, the population is represented by a small number of groups. Thus, a non-probability sampling method would be suitable in this research study. A subset of a population is known as the size of the sample, especially with the aim of creating a forecast based on a numerical count. According to Birks and Mills (2015), a sample is normally a fixed portion of a statistical population whose characteristics are calculated to gain information about the whole population. The sampling method is an important factor of the general sampling strategy because it enables the researcher to get the most significant data for further studies. Participant observation is the most vital qualitative data collection technique that assists the researcher in understanding the population under study (Charmaz, 2014; Phella, Bloch & Seale, 2011). This is particularly suitable for assessing expressive studies and studies focused on developing theoretical interpretations. The findings made as a result of participant observational research are appropriate for examining theories. Participant observation enables the researcher to not only observe what is occurring, but feel the experiences of the participants.

The research techniques focus on observing factors that affect consumer purchasing decisions, and also consumers interacting with their products and services including their surroundings. The interview is a common method of collecting data in a qualitative study. A semi-structured interview technique would be a suitable method to understand consumer behaviour towards online shopping. This technique enables interviewees to talk about their viewpoints on a specific topic. The researcher can give and obtain information associated with the topic. A semi-structured interview presents questions and topics to interviewees though it aims to explore ideas and opinions of the interviewees (Silverman, 2009; Birks & Mills, 2015). The method gives choices to the interviewees to enable the researcher to examine the topic in-depth. The focus of the interview is to explore consumers' opinions towards online shopping. Data analysis is a technique of organizing the raw data through which important information can be extracted. Charmaz (2014) supposed that collected data from interviews and observation will be analysed through a grounded theory process technique: axial coding, open coding, as well as selective coding. Secondary data are obtained from library facilities such reports, journals and books, while primary data are obtained for the research fields.

4. FINDINGS

Out of 35 respondents interviewed, 18 were females and 17 were males. The age of the respondents ranged from 20 to 40 years. Table 1 illustrates the profile of the interviewees. Majority of respondents liked searching online channels for information “more” than offline channels. Except for 2 interviewees, the data showed that 33 interviewees had searched online for product information within the last month.

Table 1: Profile of the interviewees

PROFILE	TOTAL	PERCENTAGE
<i>nationality</i>		
Saudi citizens	35	100%
<i>gender</i>		
male	17	49%
female	18	51%
<i>age</i>		
20-24	8	22.8%
25-29	9	25.7%
30-34	9	25.7%
35-40	9	25.7%
<i>education</i>		
less than bachelors	15	42%
bachelors and above	20	58%
<i>occupation</i>		
employed	21	61%
unemployed (includes, housewives and students)	14	39%

The results indicate that Saudi citizens are more interested in searching online for product information. The results indicate that females are more interested in online shopping when compared to their male counterparts, although the result is not significant.

Also another finding is that individuals of age 25 years and above are more interested in online shopping compared to people aged less than 25 years old; nevertheless, the result is not significant (Al-Mowalad & Putit, 2012). The education level of consumers positively influences their decision for online shopping; participants with a bachelor's degree and above show an interest in online shopping. Furthermore, employment status has an influence on online shopping; individuals employed (i.e. those who are working) show more interest in online shopping compared to unemployed individuals (i.e. those who are not working). The results identify the psychographic factors such as convenience, information, available services and goods, time and cost efficiency, and security, in examining the fundamental characteristics of Saudi customers' information search behaviour. Khalil (2014) identified that the revolution in online platforms has created a great opportunity for Saudi citizens, particularly women who had often encountered many cultural and social obstacles that hindered them from engaging in work. The results based on the demographic profile shows that many females are increasingly attracted towards online "shopping". Online shopping is a new phenomenon in Saudi Arabia. People are increasingly embracing online shopping. About 61% of the respondents said that they have used and enjoyed online shopping and surfing online for pleasure, have the accessibility of a wider, deeper product selection, have a fun, online shopping experience, and a greater variety of stores (Heinrichs et al., 2016; Pan & Fesenmaier, 2006). However, 47% of the respondents revealed that they never buy anything online. It is evident that Saudi consumers appreciate the benefits of online shopping. The benefits are endless and it is time local businesses seize the online opportunity in the digital era of the 21st century. However, some Saudi citizens have yet to be convinced of such a popular, global shopping technique.

4.1. Convenience

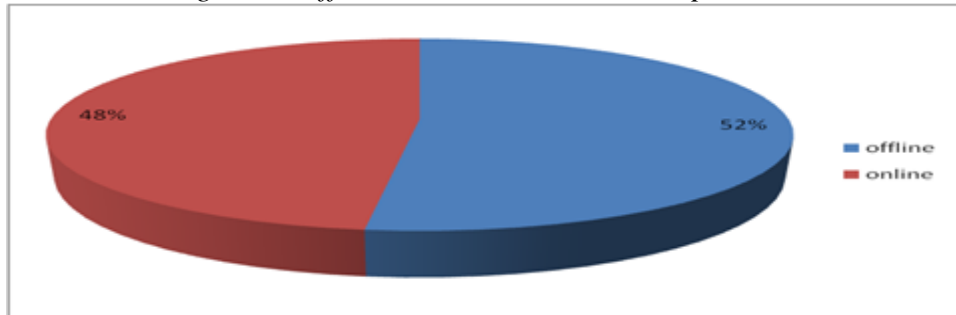
A total of 56% of the respondents identified that online shopping is more convenient as it involves less effort than offline shopping. Shopping tasks are now made simpler and are available 24/7, as nowadays people can search and buy products in the middle of the night with the use of smartphones and other technological tools. It shows 61% of the respondents said "yes, they feel that online shopping is easy and convenient to make wider product selection, carry out broader information search, and purchases are better priced compared to offline shopping" (Hoda, Ahmad & Melibari, 2014; Alam et al., 2014). A total of 49% of the respondents said "no, they don't feel online shopping is convenient".

4.2. Information

It is noticed that 100% of the respondents declared that they prefer searching for product information online, and said that online platforms have made it easier to access information. Online platforms offer more product information, which respondents said they frequently utilize when seeking products and services online (Watchravesringkan & Shim, 2003; Morris, Teevan & Panovich, 2010; Punj & Moore, 2009; Saleh, 2015). Respondents claimed they often seek information online to meet their needs for products and services. Residents said they get information online and benefit from product reviews made by other customers.

4.3. Available services and products

Most respondents revealed that online platforms provide a variety of services and products, and have made transactions easier than before. Respondents said they can get all types of products online from across the world; thus saving a lot of time compared to traveling to offline channels (Makki & Chang, 2015; Prasad, & Aryasri, 2009). Various companies provide easily reachable websites and payments methods are secure. However, 52% of the respondents said that they like shopping in offline stores to touch and visualize products they intend to buy, while 48% said they like online shopping due to the wide variety of products. See figure 1.

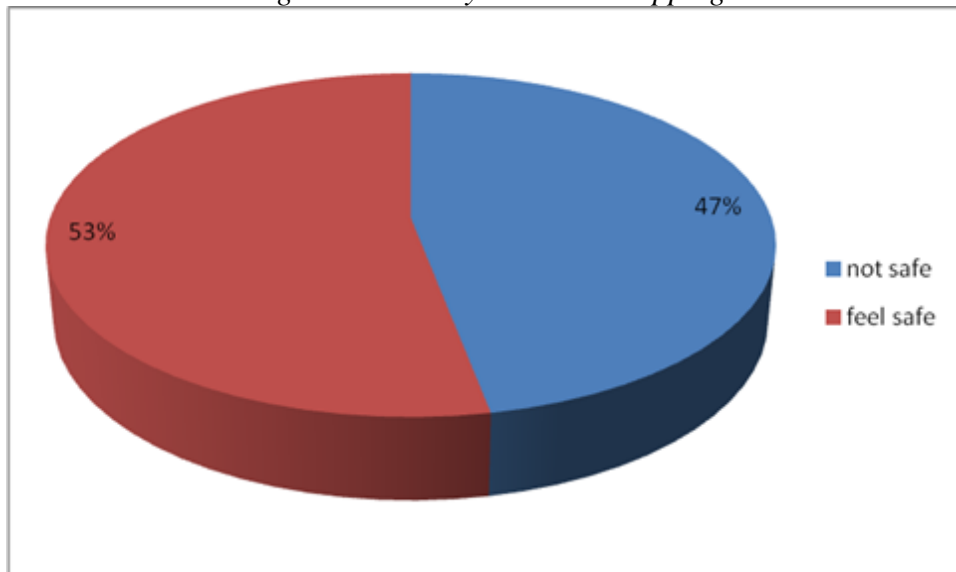
Figure 1: offline vs. online services and products

4.4. Time and cost efficiency

A total of 59% of the respondents indicated that online platforms provide better deals for products at lower prices than offline channels. According to Al-Maghrabi & Dennis (2011), in today's society many people are busy with work and value their leisure activities. People save time searching for product information online rather than travelling to offline shops (Turban et al., 2010). The respondents believed that a lot of time is saved in online shopping and online products are cheaper than offline products. However, 41% of the respondents identified that offline stores provide affordable products compared to online channels.

4.5. Security

However, security is the main threat hindering most Saudi consumers from shopping online. A total of 47% of the respondents said that they do not feel secure shopping online due to concerns about providing their account and personal details (e.g. credit card details) because of unauthorized use and fraudulent activities (Eid, 2011; McCole, Ramsey & Williams, 2010; Metzger, 2004). This explains why, currently, a large number of Saudi consumers still like to shop in offline channels rather than via online channels. See figure 2.

Figure 2: security in online shopping

5. DISCUSSION

When asked about their motivation towards online channel choice, the respondents' answers were mainly connected to convenience. Such a finding is linked with the theory of Kim and Forsythe (2007), who identified that consumers who shop via an online platform have more functional motivation to behave in that way.

Such consumers mostly have special thoughts of what they are searching for online. Often, they know what they want to buy online. Moreover, Kim and Forsythe (2007) revealed that consumers who choose online platforms are more concerned with purchasing in a timely and efficient way to accomplish their needs, with the least amount of effort, and this is also stated in the research. A respondent identified that she does not have time to walk from one physical store to another and it is time consuming. This is why she prefers buying things online. Convenience, explained in terms of accessibility, is supported by Brodsahl and Almousa (2013), who identified that 24/7 accessibility, and availability through more than one location make online channels more beneficial than offline channels for Saudi consumers. Consumers can search for product information at any time and shop whenever they want. With new technology, products are delivered very quickly. Consumers can order goods, and within two days the products are received, and they can search for anything and purchase from all parts of the world. It is about convenience. Online channels bring efficient shopping and increases the benefits of searches. Heinemann and Schwarzl (2010) called information possibilities as channel attribute in which online platforms differ from offline channels. It is as easy to search information and shop online, as it is to click for information online. Searching for information online is much easier than searching through pages of hard copies. Many Saudi consumers are increasingly using online channels to search and buy products online. Consumers' intentions towards online channels are increasing and becoming more fashionable in Saudi Arabia (Hernandez, Jimenez & Martin, 2011). The findings showed that younger generations, like students and younger professionals, have highly embraced online channels, as they prefer to search for information and buy products and services online. When consumers like to search for product information online, various factors influence them in purchasing products online. Al-Maghrabi Dennis and Halliday (2011) identified that the key influencing factors include convenience, information, available services and products, and time and cost efficiency. Price factors motivate consumers since prices are mostly lower through online channels compared to offline stores in the market. Online channels are of great benefit to local consumers in terms of saving money and time, and they enjoy its convenience. Furthermore, discounts and promotional deals encourage local consumers to be positive about online shopping. Despite the advancement of information technology, many people still do not buy products and services online compared to other countries. Online shopping remains a new trend in Saudi Arabia's information technology revolution. Saudi consumers' attitudes towards the use of online channels are just beginning, but they are expected to grow as supported by the results. Still, many consumers like to touch and visualize products when purchasing, and that is the reason for the number of consumers who like to purchase products in offline stores. Though the country has the fastest and largest growing Information and Communication Technology (ICT) in the Middle East, Saudi Arabia is still experiencing a slow growth in online shopping (Vuylsteke et al., 2010; Heinrichs et al., 2016). It is expected that in the future, more Saudi people will attempt online shopping. With better understanding of the target customers, online entrepreneurs and retailers would be in a position to build more efficient and more focused online retail operations that meet the expectations and requirements of their online shopping customers. Therefore, the study aimed at identifying factors that may influence the online buying behaviour of consumers in Saudi Arabia. The findings of the study identified that several factors may influence customers' decisions towards online behaviour in Saudi Arabia. This can assist online e-retailers in developing their strategies towards targeting the right potential customers. This study indicates that customers' demographic factors are a significant influence in online shopping. The results show that in Saudi Arabia, online shoppers are more educated, are over 25 years of age, and women are more interested in online shopping compared to men (Hernandez, Jimenez & Martin, 2011). Also, employment status influences online shopping behaviour.

Compared to other countries, many people still do not engage in online shopping in Saudi Arabia. Cultural factors and security issues discourage many Saudi consumers from engaging in online shopping. However, the number is likely to grow in the future as many customers have shown an interest in online shopping. With the advancement of technology, psychographic factors appear to influence consumers towards online shopping. However, security and cultural factors still discourage many consumers from shopping online.

6. CONCLUSION

This study's findings presents sufficient information for online retailers to strategically plan their online business operations and be successful in the Saudi market. In Saudi Arabia, the online market looks promising as it has a large potential due to strong indicators. The findings indicate that Saudi citizens are more interested in online shopping. Based on the interest in online shopping, online retailers need to concentrate on customers above 25 years of age who appear to be involved in online shopping. Also, online retailers should target females using unique and different marketing strategies. Typically, customers consider retailers' image when buying products online. Thus, online retailers should apply appropriate marketing strategies to promote image building. Moreover, the role that web atmosphere plays in influencing customers towards online shopping is very important. Thus, more informative and highly organized, simple websites of online retailers may motivate Saudi customers towards online purchasing. The study revealed consumers' attitudes towards online shopping. The government and online retailers can benefit from the findings of this study to create appropriate strategies to build customer awareness about online shopping. The findings of the study revealed that the progress Saudi Arabia is making towards adopting online shopping is slow compared to other countries. However, many Saudi nationals are interested in online shopping. The study revealed reasons that prevent people shopping online. The reasons include security risks and distrust, and consumers like to experience, touch and visualize products when purchasing products in offline stores. Our study concludes that Saudi consumers have positive attitudes towards online shopping and are increasingly interested. Many consumers have begun purchasing products and services online and they are satisfied. The results of the study indicate that 62% of the respondents prefer online shopping to offline shopping. The key reasons that influence consumers to shop online include convenience, better offers (prices), and time saving. Products and services such as electronic devices, airline tickets, booking hotels, online payment methods, clothing, furniture, vehicles, and machineries significantly influence Saudi customer to shop online. The study concludes that such are some of products and services that influence consumers to shop online. Therefore, there is a significant correlation between online shopping and factors of risk and demography, and types of services and products. Our study provides online retailers and the Saudi government with significant and useful information about consumers' attitudes, including the key factors and reasons that influence online shopping. Online retailers and the government should cooperate to enhance consumer awareness towards online shopping, and they should eradicate risks hindering consumers to shop online. In the future, there is a need to carry out similar studies that include both Saudi nationals and non-Saudi nationals who live in Saudi Arabia.

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ORGANIZATIONAL COMMITMENT TO PROFESSIONAL GENDER EQUALITY

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ABSTRACT

Equality at work is one of the fundamental principles enshrined in international labor Conventions, including the 1951 Convention (No. 100) concerning equal remuneration, and the discrimination (Employment and Occupation) Convention (No. 111) adopted in 1958. In Morocco, the Constitution of July 2011 enshrines equality between women and men regarding all rights, including economic rights, the right to work and rights in the workplace. In the same context, Law No. 103.13 on combating violence against women was recently adopted on the 14th of February 2018. By including all forms of violence against women in different contexts, whether at home, on the street, at work or elsewhere, this law will allow Morocco to have a legal reference that could guarantee a better protection of women against all forms of violence. Despite the legislator's efforts, experience shows that affirming principles is not enough, and ensuring the implementation and effectiveness of these rules is necessary. In this field companies' key actors play a crucial role. Powell (1999) uses the notion of organizational attitude towards equality, which refers to actions and beliefs of actors in favor of equality. Furthermore, in the case of Morocco no exploratory study has been carried out until then. The present study aims to understand the commitment of companies in Morocco in terms of gender equality. To do this, four business case studies are mobilized. The analysis of the results shows that perceptions of key actors' within the company influence the priority given to equality. Depending on the level of organizational commitment, equality practices vary considerably from one company to another. The categorical analysis allowed us to identify three business profiles in terms of involvement: blind to gender, active and proactive.

Keywords: *Case studies, Organizational commitment, Professional gender equality, Typological analysis*

1. INTRODUCTION

In Morocco, the public authorities have been engaged for several years in a fight against inequality of rights between men and women. The country has passed legislation on a variety of laws and public mechanisms that constitute an important regulatory framework. However, experience shows that it is not enough to affirm principles and rules to establish equality, we also need to ensure that they are implemented and effective in situ, hence the crucial role of key actors. The real challenge is to be convinced that equality is a condition for the creation of value and wealth as confirmed by a study of McKinsey Global Institute in September 2015. According to this study, parity can increase the global annual GDP of 28 billion by 2025 dollars, a growth of 26%. In the Middle East and North Africa, the potential gain in terms of annual GDP is estimated at 2.7 billion dollars, an increase of 47%, report the authors of the same study. Within four large multinational companies relocated in Morocco, our study aimed to explore women executives' perceptions about professional equality M / F. We conducted parallel semi-directed interviews with their HR Directors.

The objective is to use a double approach that allows the triangulation of the data (Wacheux, 1996, Hlady Rispal, 2002). This article presents the results obtained from the documentary study and the interviews conducted with the HRDs. The summary analysis of the data allowed us to note varying degrees of involvement from one subsidiary to another, despite the strong commitment of headquarters to the professional gender equality. A central question was then raised: what are the determinants for organizational commitment of local actors in favor of professional gender equality? We will first present the intra-case analysis by detailing each of the case studies on the basis of similar patterns (Yin, 1994). We will then summarize the organizational factors promoting positive actions dedicated to women. Finally, a categorization of the four companies according to their commitment to equality will be presented.

2. ORGANIZATIONAL ATTITUDE TOWARDS THE PROFESSIONAL EQUALITY

Based on our literature review, we found two underlying models of HR practices: professional equality based on a legal obligation and diversity management based on a moral ideal (Barth, Falcoz, 2007). In the absence of institutional pressures, the adoption of practices in favor of women by Moroccan companies is a proactive approach. It is therefore more reasonable to talk about diversity management in our case studies. The perception of the actors becomes essential in the adoption of these practices (Powell, 1999, Frimousse and Peretti, 2005). This result is thus reaffirmed by Sahraoui's (2011) study about the exploration of six research cases. The perceptions and convictions of key actors (CEO, HRD and supervisors) in terms of gender parity play an important role in implementing effectively relevant practices within companies (Sahraoui, 2011). In their turn, Cornet and Warland (2008) explain that the management style of managers impacts directly the success of equality policies. Since the cases studied are the Moroccan subsidiaries of four multinationals, it is also relevant to interpret their commitment to equality according to the directives forwarded by the Group's management. In a quest for performance and homogenization, multinationals tend to transfer their HR practices to subsidiaries (Powell and Dimaggio, 1991). An investigation conducted by DIORH (2004) on HR practices in Morocco shows the sophistication of "egalitarian" practices in Moroccan subsidiaries of multinational companies. This transfer of "good practices" is also confirmed by Frimousse and Peretti (2005) study. Otherwise, the importance of women's policies can be approximated by the theory of the resource (Selznick, 1957, Demsetz, 1958, Penrose, 1959). According to Penrose (1959), resources are everything that generates flows of service for the creation of value. Given the contribution of women's qualities to companies, this assertion is true in companies where the integration of women is linked to a Business case (Cassel, 1996). At last, a categorization of Konrad and Linnehan (1995) taken up by French (2001), provides an adequate analysis framework for the practices in selected companies. One might argue that companies adopt "Identity conscious" practices (Categorical practices) or "Identity Blind" practices (Universal practices). "Universal practices make no mention of any particular group: They apply to everyone, theoretically in the same way and without discrimination; they consider that the decisions taken are based on non-socially biased criteria; they so refer to the Weberian bureaucratic ideal. Categorical practices target a specific group, with a view to positive discrimination. (Bender, Pigeyre, 2004, p.65).

3. METHODOLOGY ADOPTED

To conduct our qualitative research, we opted for the case study strategy which is the proper approach when exploring, analyzing and understanding a phenomenon as a whole and in its context.

3.1. Case method

Given the exploratory nature of our study, we opted for the multi-site case study. The use of this sampling strengthens the validity of the results, since it is based on the principle of successive replications: if a result is true in a context, and it is true in a comparable context and not different, the result is more robust (Yin, 1993). Data collection was based on three sources: direct observation, semi-structured interviews, and secondary data.

3.2. Selection of cases

The four business cases were selected mainly because of the openness of their key actors to an in-depth investigation. We are aware of the limitations of convenience (or opportunity) sampling in terms of both statistical representativeness and generalization of results. It is worth noting that this scoping study aims in no way, at least at this stage, the generalization of results to all automotive and aerospace companies in Morocco. The four cases are subsidiaries of industrial multinationals relocated to Morocco, and are based in Tangier (North of the country). They all share a strong commitment from their headquarters to the professional equality. We did not include other categories of cases, particularly subsidiaries whose headquarters are not or slightly committed to equality.

3.3. Data analysis

The analysis of the data collected is both horizontal and vertical in the sense of Wacheux (1996). We first codified the case-by-case corpus, then proceeded to an inter-case comparison, using a scheduling meta-matrix (Miles and Huberman, 2003). The analyzing process of the corpora content has been characterized by an analytical progression and an evolutionary process (Huberman and Miles, 2003). The operations that allowed us to organize the collected data are coding, grouping and categorization. The central themes of our exploratory research were subsequently identified through the calculation of the frequency of appearance of each theme in the discourses (occurrences). A theme is central when it is addressed several times by several respondents. Finally, we have identified and analyzed the direct relationships between all the themes (co-occurrences).

4. PRESENTATION OF CASE STUDIES

In this section, we will explore the companies that formed our research cases.

4.1. Company (A)

Company (A) belongs to a French car manufacturer group. Established in Morocco for about a century, it has become the leader of the Moroccan automotive market. In addition to two units dedicated to production and marketing, the group has strengthened its industrial facilities in Morocco by launching a vast industrial complex in Tangier ten years ago. The French investor has sold nearly half of its shares in the Tangier factory to a Moroccan public institution. (A) employs now 1,700 people. The company's HRD is Moroccan, holds a master degree in HRM, and has 12 years of experience in the HR function. He worked in two industrial companies before joining the current entity. The Group to which (A) belongs, adopts a management reference document led by rules of conduct based on loyalty, transparency and diversity. This document requires taking into account the diversity of needs and cultures, vis-à-vis employees and customers, suppliers or partners. Valuing in all circumstances everyone's contribution to the progress of the company without distinction of age, seniority, sex, nationality, origin etc. This repository describes the expected roles of a manager. For instance, in terms of coaching, the manager is required to, inter alia; ensure an actual equity in the system and a practice of recognizing everyone's contributions to the results. He/she should also respect the work-life balance of its collaborators, without using its hierarchical position to offend this principle.

Furthermore, the group created an international virtual network dedicated to women. This network has two main objectives. On one hand developing the HR processes namely the recruitment, and the career management. On the other hand contributing to evolve mentalities and promoting networking for women professional success. As part of the adoption of the gender diversity strategy carried out by the head office, the administrative positions are at equal parity between men and women. Moreover, the Moroccan subsidiary sets a percentage of 20% for feminization of the direct labor force. To support this strategy, arrangements are being put in place by the ergonomics and working conditions team. The redefinition of positions and management assignments can be mentioned as an example. Staffing committees determine the appropriate positions according to the physical abilities of women, especially during pregnancy or those returning to work after maternity leave. Under the same vision of feminization of the workforce, a target of 15% is set at the level of operational management positions. To cope with the reluctance of men to be managed by a woman, specific coaching on the managerial skills development is provided to young female team leaders recently graduated. From a perspective of assistance to the management of the two life times, and in collaboration with the social partners committee, the company approved a project to create a nursery for the young children of all female collaborators. On the other hand, the company allowed women to group breastfeeding hours and enjoy a weekly "idle" day to rest and take care of their newborns. For women working night shifts, additional 30 minutes break is allowed. Finally, the company is following a preventive management plan led by the social partners. It consists of regularly reporting women's concerns and constraints to the HRRs. Practices in favor of women reflect a high degree of conviction within the subsidiary (A), and the results of these practices are evaluated via a reporting to the parent company.

4.2. Company (B)

Company (B) is one of the subsidiaries of a French family group operating in the logistics sector. It is present in five countries around the world and generates significant turnover. The Moroccan subsidiary, created a little over a decade ago, employs 800 employees. It operates in the aerospace industry and specializes mainly in the manufacture of composite spare parts for the aerospace industry. (B) is the first company of its kind to locate in Tangier since the opening of the Tangier industrial free zone. The company's HRD is Moroccan, he graduated from a high business school and specialized in HRM. Before his current position as HRD of three industrial sites, he was at the top of the HR function in five other companies operating in different sectors for 17 years. The parent group to which the company belongs has a strong and demanding corporate responsibility policy and attaches the utmost importance to the adoption of an ethical behavior. The Group's CSR approach is based on four pillars: employee development and social dialogue, safety and operational excellence, ethics and finally respect for the environment. The group is a signatory of the United Nations Global Compact and endorses the 10 basic principles of this initiative. In (B), a collective agreement was recently adopted. It governs the relationship between the social partners and the management staff. This collective agreement represents a HR strategy considered as innovative in Morocco in that it offers greater benefits than those dictated by the labor code. It contains, inter alia, articles on equal opportunities between women and men and on the integration of people with reduced mobility. In the same framework of the pro-active measures carried out by the company and aiming at a better women inclusion, the company requires the hierarchical leaders to sign a paper justifying the acquaintance of the state of pregnancy of their collaborators. Each superior is therefore required to deal well with them during this critical period. It should be noted that this initiative is considered as a corrective action since it was introduced after the miscarriage of a collaborator because of a mistreatment from her direct superior. On the other hand, the HR Direction ensures equity in promotions; this is justified by the presence of two women out of eight in the executive committee.

In comparison with other subsidiaries of the group, the Moroccan entity is the best positioned in this sense and this constitutes a source of pride for the managers. Finally, the gender diversity of HR proximity teams is a priority for the HR function. The goal is to better meet the aspirations of all employees in terms of listening and intervening even when dealing with personal issues.

4.3. Company (C)

Company (C) is the Moroccan subsidiary of a recognized French automotive supplier. As part of its expansion, the group has opened its subsidiary in the industrial free zone of Tangier in Morocco, fifteen years ago, with the ambition of strengthening its market position and meeting the needs of car manufacturers. The company specializes in the interior of the vehicle and its acoustic environment and employs 800 people. The group was originally familial and independent. But it was taken over in 2016 by private investors who have made a career in the industry. The Moroccan subsidiary was sold the same year to a group of private American investors. The latter have chosen to involve the company executives in this buyout project. A structural reorganization has accompanied this purchase through the construction of a new building and the separation of departments. The HRD of the company (C) is Moroccan; he graduated from a business school and is specialized in HRM. He is a highly experienced manager with 13 years of experience in the HR function in four private firms operating in different business sectors. The parent group to which our study company belongs adheres to the United Nations Global Compact. It is committed to respect and promote the fundamental rights derived from the Universal Declaration of Human Rights, the dignity and worth of the individual, the private lives of employees and the equal rights of women and men. The Group complies with the national laws and regulations applicable to fight against discrimination. In particular, no employee may be discriminated, in particular because of his origin, ancestry, wealth, philosophical convictions, sex, sexual orientation, age, family status, genetic characteristics, true or supposed membership or non-membership of an ethnic group, nation or race, political opinions, union activities, religious convictions, physical appearance, health difficulties or physical disability, pregnancy status or surname. The Group specifically prohibits any illegal conduct that constitutes a sexual or moral harassment, including the cases where no hierarchical or subordination relationship exist between the victim and the harasser. As for the Moroccan subsidiary, it respects scrupulously the five values of the group: integrity, transparency, permanent questioning, increased performance through innovation and rigorous management. Regarding the specific measures for female employees, they are mainly oriented towards reconciling the work-life conflict. Managers try not to get women stay late at work. The HR department ensures effective management of women's situations during maternity, notably through the possibility of extending maternity leave, grouping breastfeeding hours or converting full-time contracts into part time ones. These practices help women to deal better with their work / family constraints. Within (C), there are no quotas or practices specifically dedicated to women, nevertheless practices are focused on non-discrimination and retention of all talents.

4.4. Company (D)

A leading multinational supplier in the automotive industry, the American multinational group to which "D" adheres is specialized in designing and manufacturing automotive equipment, but it is increasingly expanding its activities in telecommunications, medical equipment, computers and their peripherals. In addition to its presence in 37 countries, the group has strengthened its position through the establishment of four production units in Morocco since 1999. Company (D) is one of the two Moroccan subsidiaries located in the Tangier free zone, and specializing in manufacturing electric signal distribution systems for vehicles.

It employs more than 500 and has started its activity ten years ago. The HR manager of the company (D) is Moroccan, holding a diploma of higher studies in management. She has 17 years of experience in the same company, including four years in the HR function. She held various administrative positions before applying for the current position. The Group adopts a Code of Ethics including five principles: diversity, respect, integrity, values and excellence. Furthermore, any discrimination based on race, ethnic origin, color, sex, sexual orientation, religion, age, disability, union participation, incapacity, genetic background, political beliefs, marital status, pregnancy status or any other status protected by law in a particular jurisdiction is prohibited. The Code protects employees against harassment and intimidation, including unwanted or inappropriate jokes, insults, threats and violence or other implicit or explicit offensive practices. Within the Moroccan subsidiary, managers, as they insist on the establishment of a climate of non-discrimination, ensure that the ethical values adopted at the group level are communicated to all stakeholders through varied means. Apart from celebrating International Women's Day, the HR Manager declares that women and men receive the same treatment on all levels. No positive actions in favor of women are implemented except measures dictated by the Moroccan labor legislation, especially in managing maternity and specific working hours. However, in departments where positions are predominantly held by women, a gender diversity plan is adopted. According to the HRD, this provisional management is necessary because during women's periods of inactivity, particularly maternity leave, they are essentially replaced by men.

5. DISCUSSION

The four cases of search being exposed, the present section is dedicated to discuss the results stemming from our analyses in order to answer our central question.

5.1. The organizational factors for the professional equality

According to the results of the analysis, two organizational factors seem to be at the origin of the commitment intensity: first, the impregnation of the values of the group and the respect of Morocco's labor code. Second, the conviction shown for the feminine cause.

5.1.1. Impregnation of the values of the group and the respect of the Moroccan labor code

In approaching the subject of equality, HRDs refer mainly to the organizational values that are internalized by all employees. Integrity, transparency, diversity and so forth are fundamental principles communicated, conveyed and shared formally and informally, notably through the HR functions. "The gender diversity is of course part of our values and culture. There is loyalty, transparency and diversity." HRD of company (A)

In addition, the four HR managers are aware of the need to respect labor regulations in the host country. They consider the Moroccan labor code as the first guarantor of professional equality. "We ensure that there are equal opportunities and that there is a compliance with Moroccan laws as well. Consequently, if the Morocco's labor code is respected, we will all evolve in an egalitarian environment." HRD of company (C)

They also appreciate their level of adherence to equality principle on the basis of the application of dedicated measures. "There are measures in the labor code that offer more benefits to women whether it is for breastfeeding or night shift work ..." HRD of company (A)

5.1.2. Conviction displayed for the feminine cause

At different levels, all the HR directors interviewed adhere to the principle of professional equality between women and men, and consider it indispensable.

Beyond equality, HR departments of companies (A), (B) and (C) are more conciliatory by calling for an adaptation of the company context to the specificities and needs of female employees. They are therefore caring about the advantages secured to female employees in terms of reducing the load and the amount of work. They insist on the role played by the HR function in strengthening equality and consider themselves responsible for the appropriation of this principle and its transmission to the rest of the staff. "The HRD is there to ensure equality in general, and gender equality in particular. He must be very firm about sanctioning people who harass or make barriers for women. We often try to open debates on this subject." HRD of company (A)

The HRD of company (D), for its part, ensures the strict application of the legal provisions in force. She considers the woman as the only responsible for her career. If she chooses to lead a family life in parallel with her work, she must assume the conciliation between the two. "At (D), we do not have practices to help women reconcile between the two lives. The woman does not enjoy more advantages than the man just because of her gender. It's up to the woman to look for the balance herself and she has to assure it." HRD of company (D)

For this HRD, the company must manage all male and female employees equally. According to her, granting specific advantages to female employees would be unequal treatment against men. "There are no woman-specific benefits besides the celebration of International Women's Day. But if we talk about salary, rewards, work schedule, leave management ... It's always the same management for men and women. Sincerely, the automotive world is very demanding in terms of time, skills and physical presence." HRD of company (D)

Finally, adherence to the principle of gender equality can be sustained in the case where HRDs are aware of the contribution of women's qualities to the management and the company. The HRDs of companies (A) and (B) consider the mixed gender teams as a vector of performance for companies. "We try to create a motivating work environment for these women; we aim for the long term. We need it, (...) diversity creates a lot of social interactions; we have many women and men who have founded families here. (...). I can guarantee that because I've been through the experience since the beginning. I had a workforce of almost 100% men and we recruited and integrated women progressively. I can confirm that the internal climate has started to calm down because of the presence of women. We used to have lot of problems to deal with at the beginning; even culturally men do not say bad words when women are around. They even offer help to their female collaborators sometimes. A very positive return was recorded when women became part of our teams." HRD of company (A)

The Business case is omnipresent in the speeches of these two HRDs. "A mixed gender team works better than a team with a male or a feminine majority. Gender diversity promotes the know-how-to-be knowledge. It enhances the level of the know-how-to-be and the know-how to live and work together in a team. This impacts productivity and quality. People will be more inclined to do what they have to do while respecting their environment." HRD of company (B)

5.2 Categorization of companies

The results show that the degree of conviction of people in charge of equality, HRDs in this case, determines the meaning and the intensity of practices dedicated to women. Given the particular status of women, especially during some events: pregnancy, childbirth, or in specific working conditions like night shift work and dangerous works, the three HRDs "men" are rather for an equal but differentiated HRM according to the gender.

"We can anticipate by adopting a gender oriented HRM but in a positive way. For instance, setting quotas for women in jobs that are traditionally occupied by men." HRD of company (B)

The male/female physical differences make these managers aware of each gender' expectations: "Today the tendency is to create this diversity and provide the appropriate conditions after the integration of women, either in training matters, redefinition of positions or job assignments because there are positions that the woman cannot operate. It is not discrimination, it is about her physical nature that prevents her from doing the job." HRD of company (A)

While for the HRD "woman" the equality is not negotiable, evoking a special protection for women employees seems paradoxical to her:

"I find it difficult to set positive actions for women because they are women. It is unfair!" HRD of company (D)

Following our analysis we can distinguish three categories of companies, according to their level of implication for a good integration of female employees:

- **Proactive**

The establishment of the basic practices of gender equality is not only the result of directives and requirements of parent companies, but becomes a project that subsidiaries (A) and (B) are committed to through their HRDs and the departments that accompany them. Convinced of the benefits of gender equality in the workplace, HRDs practice positive actions in favor of women because they are considered as a priority category. Assuming fully their role as a strategic partner in the sense of Ulrich (1995), these HRDs deploy a pro-active HRM policy to support and include properly female employees. This state of play makes supervisors, on whom a good implementation depends the most, aware of the dedicated practices for women. "We try to be preventive and manage situations of pregnancy by tailoring the work positions, coaching the employee etc. You know that it is a difficult and critical period for women. We try to be in the preventive. Today, I have 8 pregnant women, but with a youth population and the number of single women, numbers are increasing. We try make positions simple and easier to operate. Our collaborators are ambassadors for other women who want to join us. They convey a positive image about the company and the way it treats women employees." HRD of company (A)

- **Active**

The General Manager and the HR Directions of the subsidiary (C) are both aware of the necessity of equality, but the actions put in place for women are very modest, focusing only on pregnant employees or those who are in a period of maternity. The HRD announces that the subject of equality is not common within the firm because discrimination does not arise. The company adopts a diversity management, its HR practices aim to integrate all the human competencies, and woman are considered as a category among others from this perspective. "I do not see any differences between the two genders. The woman must show what she is capable of. In practice, what is going to determine the woman's situation within the company is, above all, her job, that is to say, what she can bring to the company. It is the competence of the person, whether a male or a female, that determines his situation and his place within the organization." HRD of company (C)

- **Blind to gender**

The HR practices within the subsidiary (D) target non-discrimination, ignoring all the dimensions related to gender or female specificities.

The HRD, who is not convinced of the efficiency of a favorable treatment for female employees, seems insensitive to gender issues and does not wish to practice positive discrimination in favor of women. Following the same logic of the HRD of (C), she insists on the need for an effective management of all resources through the integration of all male and female competencies. "I honestly do not see any discrimination against the woman within (D). The woman has the same chances of evolution, everything depends, above all, on her competence, her availability and her reactivity. The automotive world requires a lot of responsiveness." HRD of company (D)

Returning, finally, to the categorization of Konrad and Linnehan (1995). Categorical practices identify the privileged groups. It can be argued that (A) and (B) belong to categorical models where the woman is identified as a priority category. Universal practices, in contrast, ensure the implementation of non-discriminating rules in all processes. (C) and (D) are part of universal models where the goal is to integrate all the competencies.

6. CONCLUSION

Since all the HRDs interviewed are part of the executive committees of their companies, it should be noted that in all the research cases, the human resources department occupies a central and strategic position in the decision making process. However, the organizational implication for equality is addressed in two different ways. It is either a voluntary action, or an obligation from the parent company. It turns out that the efforts of the Moroccan legislator on equality did not prevent Morocco from ranking 136 out of 143 countries according to the report of the World Economic Forum on Men and women equality. Nevertheless, the real picture is not as dark as international statistics and rankings might draw at a first glance. In addition to the institutional and legal framework, civil society has demonstrated, through serious projects, a real desire to advance the cause in Morocco. "Personally I think it's a very important topic, and today in Morocco, at the competent ministry level, much effort must be put in the revision of the labor code, the integration of the woman, some advantages... Most importantly, the Ministry needs to work on generalizing the cause of equality in Morocco. Many efforts are being made by large companies for women's integration, but there are contexts where there is still a gap." HRD of company (A).

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THE PERMANENT STRUCTURED COOPERATION INITIATIVE (PESCO) AS A STEP TOWARDS THE EUROPEAN DEFENSE UNION

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ABSTRACT

More than six and a half decades after the Pleven Plan, which aimed to create the European Defense Community (EDU), the EU member states still need to formulate and elaborate a bold vision for the EU's defense integration consistent with current concerns about the security environment and austerity. Political talk about the "EU army" is a double-edged sword. There is no unifying vision for a leap towards a greater EU role in security and defense. The political debate flared up among EU member states when the topic is the development of military programme under the EU security community. Security changes and challenges for the European security could force states to rethink about restructuring of national armies that might be transformed and interrelated into European army and put under the unified EU's command. Out of 28 EU member states, with one supposed to leave the EU rather soon (the United Kingdom), 23 member states have signed the Permanent Structured Cooperation Agreement (PeSCo), thereby fulfilling the respective provisions of the Lisbon Treaty. PeSCo might be the right step in that direction.

Keywords: *The European Union (the EU), Permanent Structured Cooperation (PeSCo), the European Defense Union (EDU), NATO, Russian Federation*

1. INTRODUCTION

More than six and a half decades after the Pleven Plan, which aimed to create the European Defense Community, the EU member states still need to formulate and elaborate a bold vision for the EU's defense integration consistent with current concerns about security environment and austerity. This vision takes into account calls for a recalibration of the EU defense efforts and, consequently, the Union's resilience and reputation as an autonomous security provider in its neighbourhood and beyond (Solana, 2016: 6). The European Defense Union (EDU) is an old political idea in the western part of Europe, an unfinished project, dating since the era NATO alliance was founded. The debate on the EDU opens many questions how to accelerate the EU's defense integration in the 21st century. The European Council has powers to establish a common defense with the EDU on the basis of permanent structured cooperation and a relevant collective self-defense clause (Article 42 Treaty of the European Union, TEU) and operationalise other relevant articles (Article 41 start-up fund, Article 44 TEU entrusting of CSDP missions to a group of Member States, Article 222 TFEU the solidarity clause) (EPP Group, 2016). The political founding has already been laid down on the fundamental basis by the TEU and the Lisbon treaty, which enable a build-up of self-sustainable defense system in the EU. However, the key problem lays in the lack of political will, and particularly unanimity, to achieve the EU's foreign policy goals and equally address security concerns of all EU member states within

the Article 42(7) TEU. This article in the TEU should become the EU's equivalent of NATO's Article 5, in the subject of collective defense. The EU could care about its defense and military matters under the EDU establishment and change the 3C policy (cooperation and coordination in co-optation) from NATO's global policy. This way, the EU would get more autonomy and interdependence. It would also raise interconnectivity among the EU member states to guide defense policy within accepted federal concept of multinational super state. In this paper, we address the afore-mentioned topic by giving the answers on these questions: Who would command the European army? Why has NATO so far not been replaced by the EDU? Where is the European defense policy headed, when it comes to cooperation, cohesion and co-optation with NATO's global strategy? By giving answers to these questions, we need to take into consideration the fact that modern armies need inner guidance, accepted by the Transformation Roadmap, which explains the main direction of transformation, through rebuilding national armies and adapting military capabilities, by taking the concept of pooling and sharing managed under a single set of forces. This major military goal has to be integrated into the transformation process of European armies, in order to achieve sustained interoperability between national armies, by making them fully interdependent and interrelated under a single command authority. Member States agreed to step up the European Union's work in this area and acknowledged that enhanced coordination, increased investment in defence and cooperation in developing defence capabilities are key requirements to achieve it. This is the main aim of the Permanent Structured Cooperation on security and defence (PeSCo), as outlined in the Treaty of the EU, Articles 42 (6) and 46, as well as in the Protocol 10. PeSCo is both a permanent framework for closer cooperation and a structured process to gradually deepen defence cooperation within the Union framework¹. Each participating Member State provides a plan for the national contributions and efforts they have agreed to make. These national implementation plans are subject to regular assessment. This is different from the voluntary approach that is currently the rule within the EU's Common Security and Defence Policy². The Lisbon Treaty incorporated all these provisions almost verbatim [Articles 42.6 and 46], albeit putting operational requirements, fiscal targets – although still not quantified – and multinational industrial cooperation roughly in the same basket and only changing the timeline for compliance mentioned in the relevant Protocol [no. 10] to 2010, as the treaty was expected to enter into force in the autumn of 2009 (Fiott et al., 2017: 18). Fiott et al. (2017: 7) call PeSCo “sleeping beauty of EU defence”, hence no one was in a hurry to implement the provisions of the Lisbon Treaty in the matters of defence: “Only after a series of meetings of, and non-papers by, EU foreign and defence ministers in the autumn of 2016 – Germany was particularly proactive, in the wake of the release of its White Book on defence – did the idea of testing PeSCo win the day as one of the vehicles to meet the ambitions set in the EUGS, albeit within the wider framework of the various initiatives” (Fiott et al., 2017: 20). Nevertheless, PeSCo might be the next step towards the European Defense Union.

2. THE TRANSFORMATION PLANNED BY THE TRANSFORMATION ROADMAP

The contemporary transformation of the US military has been going on since 2006. The military expert team had pushed forward from the old, Cold War army structure, with divisional organization into territorial forces to a full-spectrum force within apprehended military capabilities that were fully manned, equipped and trained as body parts of brigade components. Modern military forces were organized around large and mostly mechanized divisions that had up to 15 000 soldiers.

¹ Further information on the normative aspects of PeSCo can be found here:
<http://www.consilium.europa.eu/media/31511/171113-pesco-notification.pdf>.

² https://eeas.europa.eu/headquarters/headquarters-homepage/34226/permanent-structured-cooperation-pesco-factsheet_en.

Under the new grand military plan, these military formations had been shrunk down to a modular brigade size level with up to 4 000 professional soldiers. What is the reality of building up multipurpose and multinational ad hoc battle formations? Officially, the EU governments can deploy and sustain the 1999 Helsinki Headline Goal of 60 000 soldiers combined. Nevertheless, 18 years later, this can still not be accomplished without the help of others. And the almost ten-year-old Battle groups rotation scheme should be scrapped, since they have never been used (keeping one on standby for 6 months can cost over €100 million) (Andersson et al., 2016: 33). The transformation of an army is an ongoing process that must never be promptly stopped; hence it shapes the changing nature of military competition and cooperation through new combinations of concepts, capabilities, people and organizations belonging to the modern military thinking. Modern states need transformation strategies so they might be able to transform their culture through innovative leadership and adaptive defense institutions, and ongoing transformed processes include high risks at adjudication that is using by the Trends of Future Force (re)construction. Transformed capabilities for interdependent joint operations are undergoing force transformation process before they are used (The Army Transformation Roadmap, 2004:14). The EU – NATO states have accepted instructions as Army Transformation Plan and A Campaign-Quality Army with Joint and Expeditionary Capabilities, in order to provide a strategic approach to transformation, along with a campaign plan for executing the desired changes by adopting, in a carefully phased manner over the coming decade and beyond, modular formations and field networked systems, respectively. The new plan has been initiated through the discussion about the imperatives of defense transformation. The Army's roles in ongoing operations reflected the blur in the traditional distinction between combat and stability operations. In addition, the Army transformation plan emphasized the important role of new-era joint operation concepts in determining how new ground forces and capabilities should be built and used with joint functional concepts (battle space awareness, force application, focused logistics, and network-centric operations), and joint integrating concepts (forcible entry operations, global strike, joint logistics, and joint urban operations). The effect of these joint concepts was to create an operational framework within transformation efforts as to emphasize the importance of pursuing joint interdependencies for expeditionary operations in joint battle command, joint fires and effects, joint air and missile defense, joint force protection, and joint sustainment (Kugler, 2008:13-14). The EU states have been stuck in the military dilemma about the build-up of the European army. Helsinki Goals 2010 Document was in the first decade of the 21st century. However, advanced military solutions have still not been found. The process of military reform ought to be formulated by common requirements, and developed by advanced military technology, already accepted in the Requirements Catalogue, the Force Catalogue, and the Progress Catalogue. These Catalogues have implemented some tasks by using modern technology and assets in the Headline Goal 2010 and the Horizon 2010, respectively.

3. THE EU MEMBER STATES' PRIORITIES FOR THE EDU

The EDU as an effective international and supreme national body could build up gradual integrative cooperation among the EU member states, excluding the discrimination of states that would be based on strategic convergence. Policy integration around better cooperation at national level includes strategic upgrade to redefine back up plan for the EU's level of ambitions in response to changing threats in the globalised world, reform of institutions, procedures, and financing of a common EU defense, namely through regional clusters association by pooling and sharing military capabilities, the creation of a Euro group of Defense Ministers and the permanent EU military headquarters in Brussels that could facilitate quick planning, command, and control; then industrial harmonization process would follow, in order to re-galvanize the European defense technological and industrial base by stimulating investments and innovative

research programs Faleg, 2015). The EU may gain a political break out from deadlock on strategic and institutional level among member states on defense matters and accelerate cooperation amid resources and capabilities in the military field. This cooperation might be bundled under the same association body at international stance through a blueprinted institution, named the *European Defense Union* (EDU). The main priority of that body in the EU defense & military would not be to effectively support NATO. On the contrary, it would be capable to work autonomously, without NATO's military support and would not be submitted to any political directives from the U.S.A. or NATO. This is a focal point for the EDU as political response to the security decisions made under NATO's guidance that are destructive for the EU's overall defense. In that case the EDU would be founded only for the EU's purposes. The EDU would be able to upgrade the EU's defense policy and deepen defense integration in Europe without NATO. Europe needs to reform itself in the field of common defense and find solutions by founding the EDU, serving only for European purpose about common defense and military matters, while the EU would need to start functioning independently in defense matters. If the EU accomplishes defense autonomy, the new European foreign policy strategy could be redrawn by defined common interests those were cemented into blueprinted or updated New Grand strategy. Concurrently, the EU strategy that had been issued in 2003 is overdue and not fit to confront with the present security challenges in Europe and its surroundings. The first step in performing institutional changes under the EU auspices dictates improved decision-making process, with high ranking political consensus under and the consent of all EU member states. If all of the EU member states agree with the idea for forming the EDU, then the second step would follow, in which the European Council would constitute a ministerial forum for consultation and decision making, established by the Council of Defense Ministers, which is upgraded with the EP Subcommittee on Security and Defense matter. The third step would include the establishment of the permanent EU military headquarters in Brussels. In the next step, the Subcommittee for Security and Defense in the European Parliament would be upgraded to a fully-fledged Committee. The strengthening of defense cooperation between the European Parliament and national parliaments in defense matters would be pursued (see Faleg and Blockmans, 2015:3). This political vision could recalibrate the EU defense policy towards autonomy. Military planning in would become EU fully integrated. Interoperable armed forces would be equipped by the single European defense market under the EDA auspices, with taking into regard technical modernization. The supreme headquarters in Brussels would ensure quick and effective planning, command, and control to European army, without relying on NATO command assets. Several EU member states are supporting the stance that they would be able to form a permanent defense union, the EDU, and integrate their defense personnel and equipment into a common European defense force (Andersson et al., 2016: 31). The EU member states that support strong presence of NATO in Europe have negative attitude to form the EDU while they met with duplication of defense priorities amid EU and NATO. If the EU member states would make decisions to (re)built the military hardware component under the EDU guidance and reach consensus on the European defense policy, then the European army project would continue under ongoing transformation process by developing European infantry component, European navy and European air force. The force contingencies approved by national states participation plan would be put under a single chain of command and supported by a common armament programme under the auspices of the European Defense Agency (EDA). Tactical units at battalion size units might increase to upper size to brigade and higher level units incorporated into joint operative formation corpus and submitted to higher unit headquarters OHQ. Multinational forces set up under a single banner would be able to operate autonomously, on strategic level across the full spectrum of dominance into theatre of operation at home and abroad as to protect domain territory and would be capable to conduct a full spectrum expeditionary warfare activities abroad Europe for the EU's geopolitical benefit, and

fight against versatile threats to the EU security. The EU member states should take concrete steps towards more efficient and effective framework for defense cooperation under the EDU. The EDU would need to be approved by political consensus from all EU member states. As it has been known, the EU has no constitution and the idea of a defense union had failed to realise itself, since it was rejected by France 60 years ago. The main problem is the US policy in Europe that opposes the build-up of a strong EU super state in the political, economic, defense and military arena, in order to prevent counterweight to the US military might. The US policy over the Atlantic supports a Europe that of nation-states, which plays the main role in counterweighting the European federalism. The best example is probably, which Poland represents the most trusted US ally in Central Europe and a significant buyer of the US-made weapons. Poland and the Baltic States represent a geopolitical wedge between Russia and Germany. The establishment of a sizable US military and economic presence in Poland would supposedly strengthen Poland's position vis-a-vis Brussels, is a product of the ignorance of history. The EU elites' Europeanism is not anti-Atlantics. In its essence, it is complementary. Any effort aimed against the EU must be accompanied by an effort to liberate Europe from the US hegemony (Krupa, 2016). The problem of a long lasted political disunity of the EU represents the main problem to constitute the EU politically. The US policy, involved into the EU integration process has created, among other factors, a stall mate situation. This is one of the main reasons why the EU has not achieved the CSDP goals, which would make it more complementary, and drive a coherent and cooperative policy towards a reunited Europe. It is interesting that, a bit contrary to the views of the elites from some European NATO members, which always show reserves towards European defence and emphasize the role of NATO, the citizens of the European Union overwhelmingly (with a 75 percent approval) support a common European security and defence policy (CSDP), and more than half (55 percent) even favour a European army, as reported by EUROBAROMETER in June 2017³. The EDU would be based on legal arrangement among the participating member states, which is separate from the EU and NATO treaties, but compatible with both (Andersson et al. 2016, 32). The political damage to the European pillar of NATO alliance had been done by the US "bitter friendship". Therefore, the EU should consider the possibility of finding an alternative solution to the subordination to NATO, and repair the mistakes carried out by NATO's policy. Old fashioned NATO alliance could survive⁴, and it needs a traditional enemy as to turn over the political downturn. While EU's Global Strategy, presented to the European Council in 2016, recognized that NATO is European, it is the Europeans that have to provide their part as well. The EU and NATO must work together, and the European members of NATO have to do better together. Despite the fact that the U.S.A. is still the EU's de facto ultimate security guarantor, the situation may not last forever. Therefore, Europe has no choice but to become an autonomous security actor, and to be able to respond to crises in its immediate and more distant neighbourhood⁵.

Table following on the next page

³ http://europa.eu/rapid/press-release_IP-17-1516_en.htm.

⁴ When Federica Mogherini presented the new EU Global Strategy to the European Council back in June 2016, she offered the European strategic community a key sentence that triggered a debate on the finalité of the Common European Security and Defence Policy (CSDP): "While NATO exists to defend its members – most of which are European – from external attack, Europeans must be better equipped, trained and organized to contribute decisively to such collective efforts, as well as to act autonomously if and when necessary." (Kellner, 2017).

⁵ More in: *ibid*.

Tab. 1: Defense spending of studied NATO member states 2013-2016 (percent of GDP, based on 2010 prices)⁶:

NATO member states (ordered by the level of their contribution in 2016)	2013	2014	2015	2016
Estonia	1.90	1.94	2.07	2.16
Poland	1.72	1.85	2.23	2.00
Lithuania	0.76	0.88	1.14	1.49
Romania	1.28	1.35	1.45	1.48
Latvia	0.93	0.94	1.04	1.45
Bulgaria	1.46	1.32	1.29	1.35
Croatia	1.47	1.41	1.37	1.23
Albania	1.41	1.34	1.16	1.21
Slovakia	0.99	0.99	1.14	1.16
Czech Republic	1.03	0.96	1.06	1.04
Hungary	0.95	0.87	0.94	1.01
Slovenia	1.06	0.98	0.94	0.94

Source: http://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2016_07/20160704_160704-pr2016-116.pdf.

On the other hand, even after the outbreak of the Ukrainian crisis, even the countries that are on the forefront of the possible US actions and are NATO and EU members, were not ready to increase their to the recommended level of two percent of the GDP. Nevertheless, the Baltic States plus Poland have shown that they are willing to increase their defense spending significantly, compared to other post-communist NATO members and other NATO members in general, respectively. It is obvious that NATO's members from the Baltic feel most threatened by Russia's new assertiveness, with Poland and Estonia showing the willingness to hold their defense spending at respectable level, above European NATO members average level even before 2014 and the events in Ukraine. It is certainly unrealistic to expect that NATO-Russia relations will improve in the foreseeable future, hence the geopolitical, geostrategic, and geo-economic interests of the two parties are so opposed and mutually exclusive. However, although formally speaking with a unanimous vote, there are several different interests of the groups of states in NATO when the Russia issue is highlighted, of which we here can emphasize the two main:

1. The interests of the U.S.A., and their efforts to stay strategically present and the most important factor in the European part of NATO, with the states of the Three Seas Initiative, and especially Poland, the Baltic States, and Romania as the main allies, with a traditional ally the United Kingdom as well (now de facto out of the CSDP of the EU).
2. The interests of the states of the EU Core, i.e. Germany and France, with Belgium and Luxembourg following their lead. The interests of these states are mostly expressed through the efforts to build CSDP of the EU, and maintain good economic relations with Russia, with certain efforts to lower the level of strategic rivalry and open a dialogue with Russia.

Other interests, of smaller or not so interested groups of state are not so important, at the same time showing that European part of NATO and the EU as well comprises a couple of different priorities and interests of various groups of states, which derive from their geographical location, geopolitical position, historical experience, and their present situation:

1. The divide among the post-communist NATO members, on the more assertive group of the "New Cold Warriors": The Baltic States, Poland, Romania, and from recently Croatia as well, on one side, and the group of more pragmatic, not so anti-Russia oriented, for

⁶ http://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2016_07/20160704_160704-pr2016-116.pdf.

economic cooperation interested Hungary, Slovakia, Slovenia, and Bulgaria, with the Czech Republic “playing for both sides” (Kurečić, 2017).

2. The Southern members of NATO and/or EU have their own interests, with Italy showing interest in economic cooperation with Russia, and gas pipeline, Spain and Portugal having their own issues and problems, with geographical distance and the lack of negative historical experience with Russia/Soviet Union as the main factor of de facto “ignoring the issue” in their policies, although complying with the sanctions imposed on Russia by the EU as a whole. Greece and Cyprus traditionally have good political and economic relations with Russia, and Greece is interested for South Stream Project. Turkey under Erdogan, although it had a brief period of deterioration with Russia, after the shooting down of Russian military airplane over Syria-Turkey border, has very good economic and political relations with Russia, that concurrently deteriorate Turkey-EU relations.

During the campaign, the US President Donald Trump had been saying that NATO is obsolete, first because it was designed many, many years ago, and the NATO member states were not paying what they should and NATO was not dealing with terrorism (ZeroHedge, 2017). Nevertheless, until July 2017, Trump has more than once reaffirmed its support to NATO, and especially to Poland, the Baltic States, and most recently, to the Three Seas Initiative, the group of mostly post-socialist NATO and/or EU member states between Germany and the European core on the west, and Russia/Belarus/Ukraine on the east. Ending the dependence on Russian gas, firm support to NATO, support to Ukraine’s future membership represent some of the initiatives tied to the Three Seas Initiative, developing under Polish and ultimately, the US auspices. How would the possible EDU function? The EDU meetings would be held by assembly sessions at defense ministerial level, appointed by the general secretariat of the EDU. Those meetings could replace Political Security Council on the defense matter, while it narrows security sector priorities by focusing on defense decision making process in CSDP?⁷ In fact, many essential structures suitable for conducting European army are already in place, such the EU Military staff by conducting military activities at strategic and operational level C4I and the EDA by armouring and equipping single set of forces under common armament programs. Multinational military structures with command staffs also exist as the ad hoc EUBG formations, but the most prominent and existing land forces component is established by European corps (established by Denmark, Germany, Italy, Spain and Holland as hard-core of former WEU) since 1992 based in Strasbourg, before than the Franco – German parachute brigade was established in 1987, and after then the Multinational Corps Northeast based in Szczecin was established in 1998 (by Denmark, Germany and Poland). Small sized EU battle groups on battalion strength level that consist of high ranking formation at national level, and are submitted to operative corps core as essential units to those two operative formations (see Andersson et al., 2016: 34).

4. COMMANDING IN THE EUROPEAN FORCES

Supreme Headquarters Allied Powers Europe (SHAPE) located in Mons, Belgium, is the strategic level headquarters of Allied Command Operations (ACO) and commanded by Supreme Allied Commander Europe (SACEUR). SACEUR assumes the overall command of operations at the strategic level and exercises his responsibilities from SHAPE. He issues strategic military direction to the subordinate commanders. SACEUR is responsible for the preparation and conduct of all Alliance military operations, including routine operational

⁷ Perhaps the first steps can be recognized in the following proposals from the EU Global Strategy: The establishment of a Military Planning and Conduct Capability (MPCC) within the EU Military Staff in Brussels, the launching of a European Defence Fund, and the decision on a road map to initiate the Permanent Structured Cooperation (PeSCo).

activities and other non-operational tasks (NATO, 2016). Its priority is also to strengthen command and control above submitted European cell that is responsive to command on operative level to military branches under EU banner. While ACO manages with key military infrastructure in Europe, the net centric C4I system is fused together and being cabled at central point from ACO to national supreme commands from each member state of the EU—and NATO. Commitment to SHAPE by C4I cable includes only national troops those were put under supreme NATO and EU command, while territorial defense units as permanent reserves stayed under national HQ. In the future, any political revolution would happen to change military attitude in the ACO by planning and executing joint operations in Europe without US army top officers interferes. The European army would be commanded and controlled by small headquarters as military cell under SACEUR supervision that counts approximately to 200 high ranking officers. Due to Europe's enhanced role in NATO, SACEUR alternates between a US and a European officer with Deputy SACEUR, appointed from the other side of the Atlantic (Andersson et al., 2016: 28). European cell has symbolic military role by C4I among European forces, while those European officers are placed in SHAPE and ACO departments, and submitted to the supreme commander SACEUR which is US army high ranking officer with general ranks. Here European high ranking officers played secondary role by taking strategic military decisions, because military superiority in NATO was given to superpower US states since North Atlantic agreement had been signed. Euro - Atlantic relationship had changed political vision in Europe after European states had distanced our self from rebuilding European security toward autonomy and independence. NATO in Europe presents a stumbling block to form European army while US side had gained total control among European army transformation process under Pentagon cabled centric bodies SHAPE and ACO. What we have need to do at this point as to get (re)starting again with military integration process to build-up command structure on strategic and operative level autonomy without net centric NATO command and control system under US supervision.

5. DIVIDED POLICIES ON THE ISSUE OF FORMING OF THE EUROPEAN ARMY

Political talk of an "EU army" is a double-edged sword. There is no unifying vision for a leap towards a greater EU role in security and defense. If pushed too far, the discourse of an EU army will backfire and could lead to deeper divisions between larger and smaller member states, between richer and poorer countries or between governments. Political repercussions amid common army structure put under supreme command had begun since adopted the Lisbon Treaty, but political open talks into deeply defense and military integration process had divided EU member states into political hubs. Build-up vision for European army can be tailored by the EU member states into four political hubs. The first political hub, established by France, Belgium, and Holland had singled out that European defense could be accepted with the Lisbon treaty by conducting CSDP. The second political hub established among former socialist states by Romania, Czech Republic, Slovakia, Hungary, and the Baltic States with Italy had reclaimed that NATO alliance is a corner stone for guarantee in Europe against Russian aggressive stands, disagree and oppose to duplicate military forces in Europe, and the gate by cooperation among states are still open toward build-up complementary forces between NATO forces and EUBG into mutual interests. The third hub around Germany had atoned build-up European army toward federalization of EU relations for more integration and more Europe. Basic current of ongoing military integration process in EU could be supervised by scrutiny overview under the European parliament legislation that would have legislative right by federal constitution to approve sending troops without authorisation basis from national parliaments if they do not consent and take decisions. In opposite statement to this idea by German proposal as to get authorised the European parliament to vote among defense and military legislative by federal law of defense matters, the United Kingdom was strongly opposed to forcefully military

integration process by EU member states while this political idea could endanger or weaken NATO cohesion in Europe. For British political hawks it is absolutely clear that defense responsibility must stay under national authorities. Could major NATO centric states the United Kingdom in Europe on referendum Brexit strong opposing to European integration process a vote against federalization of EU, and endanger an existence of EU in future? However, Brexit kept doorway wide open to mitigate European cohesion and returning back to national states by torpedoing European unity under disintegration process absolutely as politically diversion. Same opinion like the United Kingdom was asserted by second NATO centric state Poland, which does not want European army. By the Polish political opinion to strengthening military integration process is bad idea while it could shake NATO cohesion, and meant as directly attack against US presence in Europe through NATO alliance. Many EU member states were not interested or stayed beside undecided among deepening and widening European army. Some marginal EU member states are avoiding to sensitive topic while they are suffering from interstate problems. They excuse and distance our self from European security matters to national top priorities while foreign policy put on second track and get dedicate to internal problems such economic recession, fiscal crises, social problems of society etc. (see Cigler, 2015). The US side being critical while strongly oppose to political idea to build-up European army. Some EU member states had expressed political opinion by forming or declining idea among EU army or with mixed taste about common military project. The UK government had immediately rejected the prospects of an EU army with main reason that defense is a national responsibility. In opposite opinion, German government seemed to welcome the idea by supporting the perspective of a European army. French government had said that the European army was an illusion, despite the country's long-standing vision of a stronger Europe in defense. Austrian government supported the idea of EU army that could benefit from supporting greater “communalisation” of the EU's foreign and security policy, leading ultimately to a common European defense. Poland government commented that the EU army proposal was a “very risky idea”, stressing that the focus of Europeans should be on strengthening NATO, which remains ultimately the “guarantor of a secure Europe”, and the EU army is an “impractical dream”, as such an army would need first of all a politically integrated Europe as decision-maker. Among the Baltic States, Latvia governments also voiced scepticism over the idea, warning against any duplication with NATO, while on the other hand, found the idea of an EU army “interesting, but very fresh”. The Finnish government considered the idea unrealistic for the time being, although welcomed the debate on the issue, as Finland supported a common EU security policy. Conversely, and expressed support for the creation of a joint EU army that could provide added value if followed by other EU member states (EPRS, 2015). Otherwise, it seems that EU work unconnected and politically divided into Diaspora, who belong to either Europeanist or Atlantic political hub. Without political consensus, it is impossible to follow united defense policy goals under the EDU that is main condition to form European army too. If some EU states get following ardent this defense policy issue that NATO will remain the collective defense bedrock for most of the EU member states for the foreseeable future, then we cannot expect turnover at night to form the EDU without political consensus from Euro sceptic states as being political puppet to US security policy. But the transatlantic Alliance cannot be everywhere, and Europeans increasingly have to cope with some security challenges by themselves, without help from the United States. Acting through the EU, therefore, is an important strategic option for EU member states (Keohane, in Andersson et al., 2016: 31). The difference between PESCO and other forms of cooperation is the binding nature of the commitments undertaken by participating member states. However, participation remains voluntary and decision-making will remain in the hands of participating member states⁸.

⁸ PeSCo will have a two-layer structure:

PeSCo should benefit, as a part of the broader CSDP framework, from the support of various EU bodies, primarily the EDA and the European External Action Service (EEAS), under the overall supervision of the High Representative (Fiott et al., 2017: 32).

6. CONCLUSION

The EDU could boost or speed up defense integration process by accepting German and French proposals in the EU, to clear political path toward constituted EU federalization state. The French initiative supports tightening the European defense policy to form the EDU body, but a European army under single command could be build-up by German initiative. In opposite scenario political disintegration forecast by predicting EU future that falls apart on regional mini coalition states like the Nordic, Mediterranean, Alpean, and Central European regional concept of associations etc. NATO strongly opposes the establishment of the EDU. A weakened EU is needed to US to manage an entire control politically, economically and military ongoing EU development by political consolidation toward constituted super state. A stronger EU after Brexit and migration crises seems like an impossible mission to achieve, because the EU has fallen into political apathy. In reality, the EU defense policy is still ineffective to confront with global security problems. What the EU member states could achieve by the EDU in army transformation process? First, powerful joint military forces could be building up with less money spending by national investments on long term for common purposes. Important common achievement by army transformation are sizing five joint attributes by attaining expeditionary interdependencies, those attributes are unified battle command, joint military assets, conventional force projection, military capabilities and sustainment into logistic and services. Second, the European army could be equipped with most advanced military capabilities that being capable to conduct full spectrum operations abroad Europe. Double track C4I system functions inseparably of the internal EU – NATO command structure, but the problem is systematically how to separate European army HQ from SHAPE to work autonomously. If the political consensus among the EU member states on defense integration process, which would result in forming of the EDU would not exist, then this multilateral cooperation would be symbolic, functioning through partial armament cooperation programs among the EU member states in the PeSCo initiative. Although military capacities developed within PeSCo would remain in the national hands that can make them available for NATO, OSCE or other mechanisms, Therefore, PeSCo might be the next necessary step for the development of the EDU.

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Council Level: Responsible for the overall policy direction and assessment mechanism to determine if Member States are fulfilling their commitments.

Only PeSCo members are voting, decisions are taken by unanimity (except decisions regarding the suspension of membership and entry of new members which are taken by qualified majority).

Projects Level: PeSCo's effectiveness will be measured by the projects it will develop. Each project will be managed by those Member States that contribute to it.

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SCOPE ECONOMIES AMONG CONCESSION HOLDING TELECOMMUNICATIONS FIRMS IN CAMEROON

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ABSTRACT

This study examines whether the simultaneous provision of multiple services by concession holding telecommunications firms in Cameroon is cost reducing. Using financial accounting information and output statistics from 2005 to 2012, I estimate a Seemingly Unrelated Regression Equation (SURE) model for 4 linear cost functions. The results establish that simultaneous provision of domestic and international calls, and of telephone and internet lines are all cost increasing, therefore suggesting that telecom operators leverage resources from profitable services to support losses elsewhere. Consequently, I recommend regulatory strategies to ensure that growth in scope of services does not lead to predatory behaviour.

Keywords: *Concession holding firm, Scope economies, Seemingly unrelated regression, Sub-additivity*

1. INTRODUCTION

The knowledge of costs is crucial in any industry, and has proven to be of special importance in telecommunications (Fuss and Waverman, 2002). Knowledge of cost does not only assist the firm internally in the allocation of resources, but also influences decision making among external stake holders such as policy makers in the process of regulation. However, a determination of costs in the telecommunication sector, especially at an individual service level, is inherently difficult. Cave et al (2002) identify three reasons for this: Firstly, the telecommunications carrier provides multiple services over a certain geographic area using capital that is fixed and common across a variety of applications. In addition, the impact of technological advance is also unevenly spreads over the range of assets and services. Finally, since the carriers and the regulators have varying objectives, the information publicly available on cost has always been limited. Consequently, the firm has had the knowledge of its costs, yet the state and the regulator have needed to regulate prices and to determine where entry, if any, should be allowed. The task of resolving this information asymmetry around the nature of cost in the telecom sector has naturally been assumed by Economists, and an important part of the debate has centered around the nature of the cost function. Since the early part of the 20th century, the telephone industry around the world has largely been organised as a natural monopoly under the assumption that its cost structure is subadditive (Block et al, 2001). When a firm's cost function is subadditive (for given input prices) it can produce an arbitrary output vector more cheaply than any two firms faced with the same cost function (Baumol and Braunstein, 1977). In the literature, this phenomenon is referred to as Economies of scope. First suggested by Panzar and Willig (1975) and outlined in Panzar and Willig (1981), economies of scope are said to exist when it is cheaper for one firm to simultaneously produce multiple products than multiple firms each producing a single of the same products. Conceptually, economies of scope arise from two main sources; spreading of fixed costs over an expanded product mix, and from the cost complementarities that can arise between different output categories if functional activities are carried out under the umbrella of one firm (Pulley and Humphrey, 1993). Since its inception, Economies of scope have been the main tool for empirical investigation of the cost structure of the telecommunication industry, with significant policy implications. A major example was the January 1984 divestiture of American Telecom and Telegraph (AT&T)'s 22 Bell operating companies to 7 regional holding companies.

This happened because Evans and Heckman (1984) had found no economies of scope within the long-distance and toll-call operations of the erstwhile combined AT&T organization, thus arguing for the break-up of the toll-call and local exchange components of AT&T's business.¹ The existing theoretical literature does not point to a precise mechanism of scope economies in the telecommunications industry. Empirical findings that support a scope economies outcome in the industry propose factors such as very high rate of technological change, excess network capacity, Network or club externalities, and a high potential for cross subsidization in the use of telecommunications equipment. Falch (1997) identifies Three different types of scope economies in the telecommunications sector: Economies of horizontal integration (telephony and data); Economies of vertical integration within the network (local and long distance, voice and value added network services); and Economies of vertical integration beyond the network (information production and distribution). However, as this paper shows, the distribution of costs across services is affected by technological change in a much more dynamic way. With digitalization, the nature of access line diversity reduces to a much more limited line typology as the boundaries between say business, residential and public lines become technically irrelevant. Wireless services alone are delivered by different providers deploying different technologies such as Wi-Max, Wi-Fi, EVDO, GPRS, and CDMA. Also, increased access to the internet and the proliferation of VOIP and free video chat services have largely rendered mute the need for international calls through the telephone exchange. This paper also shows that the provision of additional services does not always happen without bringing in significant service specific costs. Termination charges that domestic firms pay to foreign providers may force domestic firms to leverage funds from other services in order to maintain their market share in the international calls market, or to ensure subscribers do not switch to other providers with a more affordable call mix. International calls require different types of equipment such as trunk switches. Consequently, the scope economy impact on costs can be vitiated since additional plant-specific capabilities have to be created within the firm. These capabilities may not always be easily leveraged across the rest of the firm. At times, terminal equipment for certain services are provided for free or with access charges that do not cover the purchase price. If the burden of such service specific costs exceed the advantages that arise from the spreading of fixed costs and/or the cost complementarities that arise from separate functional activities, the firm cannot enjoy scope economies. To investigate the presence of scope economies among concession holding firms in Cameroon's telecommunications sector, I obtained data on four cost categories from financial accounting information submitted to the telecommunications regulatory board by the firms concerned. I also used output statistics for two output categories at two levels each. These statistics are published in the annual reports of the telecommunications market observatory in the ministry of post and telecommunications. Three firms were considered: CAMTEL; MTN Cameroon; and Orange CM.² I find out that line diversity (telephone and internet lines) turns to be cost- increasing for all the cost categories studied, except for customer operations expenses. Call diversity (domestic and international calls) turns to increase cost in two categories: plant specific expenses and network and access expenses. It would appear therefore that Firm specific cost profiles under conditions of service diversification are more sensitive to market specific conditions and prevailing technology rather than to an overarching theoretical framework.

¹Subsequently, Charnes et al. (1988), using the same data-set as Evans and Heckman (1984), found the existence of economies of scope between the local and toll-call operations of AT&T, arguing, therefore, that the break-up of AT&T was a mistake.

²A forth firm commenced operation in September 2014 under the brand name "Nexttel" but could not be considered for this study since its operations lie outside the study period.

Telecommunications play an increasingly important role in the world economy. According to the Telecommunications Industry Association (TIA), the global telecommunications industry was about a \$4.7 trillion worth in 2012. The service revenue of the global telecommunications industry was estimated to be \$1.5 trillion in 2010, corresponding to 2.4% of the world's gross domestic product (GDP). Despite this, few economists in the rather equivocal scope economies literature have focused their analysis on the telecommunications sector, especially given that the industry is very amenable to service diversification. Granted, Banker et al (1998) examined whether the existence of scope economies leads to reductions in unit Costs for a sample of the key firms making up the local exchange sector of the United States Telecommunications Industry. Data for the years 1988 to 1992 were examined and the results established that the generation of multiple outputs, using the resources and infrastructure that the firms possess, does lead to reduction in average unit costs for the firms studied. Bloch et al (2001) employed a composite cost function to examine the cost structure of Australian telephone services. The composite cost model combines the log-quadratic input price structure of the translog model with a quadratic structure for multiple outputs. Model estimates on Telstra system data from 1926 to 1991 revealed that the production of Australian telephone services exhibits economies of scope. Two papers that agree with my findings of no economies of scope in the telecommunications sector are Shin and Ying (1992) and Leggette (1994). Both studies used the translog function to estimate the local exchange carriers cost function with data constructed from the Federal Communication Commission's Statistics of Communication Common Carriers. Shin and Ying (1992) concluded that the cost function is definitely not sub additive, and therefore efficiency gains could be achieved if the local exchange carriers were broken up. Leggette (1994) concluded that there were no economies of scope between his two outputs, private branch exchange and main station telephones. As discussed later, this study makes efforts to deal with methodological flaws inherent in empirical analysis involving scope economies. I do this by accounting for cross-equation contemporaneous correlation which may arise due to correlated shocks to technological changes in the industry or from spill overs from industry wide or economy wide shocks. The rest of the discussion proceeds as follows: The next section discusses how the competition and regulatory environment for telecommunications services in Cameroon has changed over the last two decades. Section III describes the data and methodology. Section IV describes the results and section V offers concluding remarks.

2. CONTEXTUAL HISTORY AND CURRENT TRENDS IN CAMEROON'S TELECOMMUNICATIONS SECTOR

Before 1990, as in most African countries, telecommunication services (like other public utilities) were managed under tight state control. The public enterprise INTELCAM (International Telecommunications Corporation of Cameroon) was in charge of operating and developing international telecommunication installations, while the Ministry of Post and Telecommunications (MINPOSTEL) set the rules, ensured they were applied and was itself an operator, given that it also developed and provided domestic telecommunications services. The results did not always live up to expectations. The coverage rate and quality of service offered remained largely inadequate. Following the economic crisis of the mid 1980s that saw a sudden and rapid recession of the Cameroonian economy, the government adopted a structural adjustment program under the direction of the World Bank. This program was meant to address key macroeconomic and sectorial issues facing the country over the medium term. According to the World Bank's project document for this program, two of its basic elements were the deregulation of internal commerce with a view towards lowering the domestic cost structure, and the restructuring and rehabilitation of the public enterprise and banking sectors (World Bank, 1989). In this light, the government, in June 1990 signed an order on the programmed privatization of public and semi-public enterprises.

The privatization program was expected to bring important benefits in the form of increased investment in the rehabilitation of existing infrastructure, reduce costs, and improve the availability of services (IMF/Government of Cameroon, 1999). The telecom sector became part of this privatization program in June 1995, when the authorities decided to thoroughly reform network industry sectors such as water, electricity and telecommunications with a view to create a favourable environment in which to develop their infrastructure and services and thus to satisfy increasingly exigent demand. The process took the form of liberalization, state withdrawal from sectors concerned and the establishment of a more competitive market structure, enabling Cameroon to remain in step with the rapid global developments in the telecommunication sector (ITU, 2000). The first concrete step in this direction was the promulgation of the telecommunications act in 1998.³ Henceforth, the government of Cameroon began issuing a series of decisions meant to encourage entry into the telephone industry. Two public enterprises: CAMTEL (for fixed telephone services) and CAMTEL MOBILE (for mobile telephone services) were set up to take over the telecommunication activities of the Ministry of Post and Telecommunications and of the public enterprise INTELCAM. Immediately, the process of privatizing both companies got underway. The privatization of CAMTEL MOBILE was completed with a South African firm (MTN International) in February 2000, which led to the establishment of MTN Cameroon. 70% of its share capital is owned by MTN International, and 30% by the Cameroonian company, Broadband Telecom (MTN Cameroon, 2017). Earlier on (In June 1999), another GSM license was granted to France Cable and Radio subsidiary “Societe Camerounaise de Mobiles” (SCM). Its Mobile network was later rebranded Orange CM following the merger of the orange group with most of the France Telecom Mobile businesses (BuddeComm, 2012). Fixed-line incumbent CAMTEL finally re-entered the mobile marketing 2009 as the third player. Till date its privatization has never been completed. The telecom sector in Cameroon witnessed remarkable progress over the first decade of competition as the volume, quality and variety of services expanded and access charges dropped. However, recent developments in the conduct of the major telecom operators present new challenges with implications for all actors including service providers, users, potential entrants, and particularly the regulator. Mirroring a trend throughout developing markets, the average revenue per user (ARPU) in Cameroon's Telecommunications sector has fallen continuously as lower income groups gain access to services. Nonetheless, as lower income groups are being targeted, the declining Average Revenue per User is putting pressure on the network operators' profit margins. Price wars have broken out recently in the form of special tariff plans and bonus options which price discriminate largely in favour of low income users. As a reaction to these developments, the major operators are taking advantage of extra capacity in the network infrastructure by moving to provide other telecom services where market penetration is still relatively low, hence, higher growth potential. Examples of such services include prepaid internet, multimedia services, hosting, value added services, caller exchange, and call forwarding. Mobile network operators have established themselves as Internet Service Providers (ISPs) and are playing an increasing role in the broadband sector, competing directly (and possibly unfairly) with fixed or wireless broadband services, a welcome new revenue stream in an environment of shrinking voice revenues. However, without proper regulatory oversight, such actions may introduce inefficiencies in to the market. The provision of multiple services is at times done in ways that may be construed as an act of bundling, an action which many jurisdictions consider to represent

³In July 1998, law no. 98/014 governing telecommunications in Cameroon was promulgated. It established the Telecommunication Regulatory Board (TRB) and attributed sector responsibilities to a variety of players: the operation of telecommunication networks to operators, regulatory matters to the regulatory board, and the definition of sector policy and the enactment of market regulations to the Telecommunication Administration.

exclusionary conduct. How therefore do we distinguish service variety that is done for the purpose of efficiency from that done for anticompetitive purposes? According to Banker et al (1998), efficiency is guaranteed in the provision of multiple services if average costs for the firm fall when additional services are offered (Economies of scope). If this is not the case, the market is better-off if the firms are divested of these services. For practical purposes, this study cannot integrate the broad range of services enumerated above. I shall therefore focus on two dimensions of service diversification with direct implications to all stake holders: Call diversification (domestic and international calls), and line diversification (Telephone and internet lines). Operational definitions and computational procedures for these constructs will be provided in the proceeding section.

3. METHODOLOGY

This study covers the activities of three concession holding telecommunication firms in Cameroon (MTN Cameroon, Orange CM, and CAMTEL) for the 8 year period from 2005 to 2012.⁴ Before 2005, the firms could be considered as being at the entry stage as they still grappled with licensing issues and the laying of infrastructure. Telecom penetration was still below 15% and internet services were mostly brought to end users through third party commercial agents and a grey market of satellite gateway operators. The study ends in 2012 for two reasons. Firstly, the period after 2012 was characterized by preparations for a new entrant, and it is expected that in this condition, firms may behave in ways different from the past and may hence introduce bias into our study. The second reason has to do with concerns over data availability as statistical databases take time to be updated. Besides their status as concession holding companies, the combined scale and scope of their activities make them the most suitable candidates for the study of output diversification and its effects on cost. Data obtained from the 2011 Telecom market report suggest that the three companies together controlled 100% of all residential lines (fix telephony), 95% of all mobile lines, as well as 80% of all public lines. CAMTEL is the sole legalized internet access provider, and the three companies combined hold 60% of the internet service provision market. Also, they handle 70% of all international call traffic (excluding voice over IP).

3.1. Data and Variables

The study makes use of secondary data obtained from records pertaining to the individual firms lodged at the Telecommunication regulatory board and the telecom market observatory. Two types of records are used to generate data for this study: Financial accounting information and plant statistics. Financial accounting information used in this study includes data on different expenses grouped into four different cost categories which constitute the dependent variables. Each dependent variable captures the costs associated with the different activities that underlie the provision of telecommunications services. The level of each separate cost category can be influenced by the diversity of outputs within each of the telecommunications companies. They include: Plant specific expenses (plant expenses); The costs of plant specific operations are measured as the sum of network support, general support, central office switching, central office transmission, information origination and termination, and cable and wire facilities expenses that are incurred by the companies. Network and access expenses (network expenses); the expenses include network operations, testing, and plant operation administration, engineering, and access expenses.

⁴This Time frame allows for the accommodation of CAMTEL's Mobile service (CT phone) who only entered the market later. This timeframe is also realistic for considering the provision of bundled services as in the earlier days, all the holders would have concentrated in the provision of traditional services only (Call Telephony).

They enable the network to be maintained and developed on continuing bases. These costs are not attributable to a specific plant, and are similar to indirect overhead costs. Customer operations expenses (customer expenses); The expenses contained in this category include product management, sales, product advertising, call completion services, number services and customer services expenses. These costs are identifiable with enabling the customer to subscribe to the network, and to generate and complete calls. Corporate expenses (corporate expenses); Corporate expenses include executive and planning, accounting and finance, external relations, human resources, information management, legal, procurement, research and development, and other general and administrative expenses. Plant statistics used in this study includes: Number of fixed telephone lines, number of mobile lines, number of internet lines, Minutes of domestic calls and minutes of international calls. These are then used to construct variables that proxy for output diversity in the telecom sector. They include: Line diversity; this refers to the varieties of service lines provided by concession holding firms in Cameroon. We consider two varieties: Telephone lines (for voice services); and internet lines (for data services); with some degree of interaction as permitted by technologies like GPRS. We use the construct “Scope lines” as the access line diversity index, calculated as the inverse of the HerfindahlHershmanindex (HHI) of a carrier’s access line mix. A concession holding company’s access line mix consists of (i) Mobile Telephone lines [ML]; (ii) Fixed telephone lines [FL] and (iii) Internet subscription lines [IL]. Therefore scope lines is given by the equation:

$$(1) \text{ Scopelines} = \frac{1}{\text{HHIlines}}$$

Where HHI lines is the Herfindahl index of the line mix defined as $\text{HHI lines} = (\text{ML}/\text{lines})^2 + (\text{FL}/\text{lines})^2 + (\text{IL}/\text{lines})^2$ and $\text{lines} = \text{ML} + \text{FL} + \text{IL}$.

Call diversity: This refers to the variety of call services offered by Telecommunication firms in Cameroon. Concession holding firms in Cameroon basically offer two types of calls, domestic calls and international calls. There are some essential differences between these two types of calls that may have economic implications. Examples include: differences in termination charges; differences in switching infrastructure; differences in customer base; and differences in providers as international calls are also provided by unlicensed satellite gateway operators and through online applications like Skype and Google voice. We use the construct “Scope calls” as the call diversity index, specified as the inverse of the Herfindahl index of an operator’s call mix. A concession holding telecommunication firm’s call mix consists of local calls (LC) and international calls (IC). Therefore Scope calls is given by the equation:

$$(2) \text{ Scopecalls} = \frac{1}{\text{HHIcalls}}$$

Where $\text{HHI calls} = (\text{LC}/\text{calls})^2 + (\text{IC}/\text{calls})^2$, $\text{calls} = \text{LC} + \text{IC}$ and LC and IC represent the volumes of local and international calls respectively.

Capacity Utilisation: This refers to the extent to which the installed facilities are being put to use. This serves as an important control against the inefficiencies that may arise due to service diversification. For instance, if the existing infrastructure is already highly utilised in the provision of current services, firms cannot expand existing services, let alone provide new services through the given channels without compromising the quality of those services. A good example is the problem of connectivity that generally arises when calls are made during high peak hours or festive periods.

The construct Capacity usage is used to proxy for capacity utilisation. It is measured as the ratio of the total phone calls to total number of lines. Therefore capacity usage is given by the equation:

$$(3) \text{ Capacityusage} = \frac{lc+ic}{ml+fl}$$

Where LC and IC represent volumes of local and international calls respectively, while ML and FL represent numbers of mobile and fix telephone lines respectively.

Additional data are obtained from private publications, the African Telecommunications Union (ATU), the International Telecommunications Union (ITU), and the Telecommunications Industry Association (TIA).

3.2. Model Specification and Estimation Procedure

I adopt an approach based on estimating a linear multivariate model (Banker and Johnston, 1993) to test the role of multiple outputs production in engendering economies of scope among the firms. The model has four equations for each of four distinct cost categories, rather than one equation for total costs, and each equation has an identical set of explanatory variables. Scaled separate cost categories are the dependent variables in each equation, as follows:

$$(4) \text{ Plant expenses} = B_{10} + B_{11}\text{scopeline} + B_{12}\text{scopecall} + B_{13}\text{capacity usage} + E_{1t}$$

$$(5) \text{ Network expenses} = B_{20} + B_{21}\text{scopeline} + B_{22}\text{scopecall} + B_{23}\text{capacity usage} + E_{2t}$$

$$(6) \text{ Customer expenses} = B_{30} + B_{31}\text{scopeline} + B_{32}\text{scopecall} + B_{33}\text{capacity usage} + E_{3t}$$

$$(7) \text{ Corporate expenses} = B_{40} + B_{41}\text{scopeline} + B_{42}\text{scopecall} + B_{43}\text{capacity usage} + E_{4t}$$

Where:

$$B_{10}, B_{20}, \dots, B_{40} > 0.$$

$$B_{11}, B_{21}, \dots, B_{41} < 0.$$

$$B_{12}, B_{22}, \dots, B_{42} < 0.$$

$$B_{13}, B_{23}, \dots, B_{43} < 0.$$

The dependent variables are four separate cost categories discussed in the previous sub section; Scope Line and Scope Calls are the principal independent variables capturing the impact of firms conducting multiple activities;

Capacity Usage captures the impact of capacity utilisation; and E is a random error term for each equation i (4, 7) for each year t (2005, . . . , 2012). The system of equations is additive and separable with respect to the independent variables. The four equations in our model above collectively constitute a seemingly unrelated regression equations (SURE) model. Proposed by Arnold Zellner (1962), this is a generalisation of a linear regression model that consists of several regression equations, each having its own dependent variable and potentially different sets of exogenous explanatory variables. It differs from a simultaneous equation model in that none of the dependent variables is an explanatory variable in another equation. A key feature of this model is that the error terms are independent across time, but may have cross equation contemporaneous correlation.⁵

⁵In our model, the correlation among the equation disturbances could come from several sources such as correlated shocks to technological changes in the industry, as well as spillovers from industry wide or economy wide shocks.

According to Moon and Perron (2006), there are two main motivations for the use of Sur. The first one is to gain efficiency in estimation by combining information on different equations. The second motivation is to impose and/or test restrictions that involve parameters in different equations. The model can be estimated equation-by-equation using standard ordinary least squares (OLS). Such estimates are consistent, however generally not as efficient as the Sur method, which amounts to feasible generalized least squares with a specific form of the variance-covariance matrix. This is a two-step process where in the first step, OLS regression for the first equation in the model is run. The residuals from this equation are then used to generate a consistent estimate for the covariance matrix. In the second step, we run generalized list squares regression (GLS) using the estimated covariance matrix to obtain the parameters of the model. This estimator is unbiased in small samples assuming the error terms have a symmetrical distribution. In large samples, it is consistent and asymptotically normal with limiting distribution.

4. RESULTS AND ANALYSIS

Total annual expenditure in the industry rose steadily from 71.11 Billion FCFA in 2005 to 97.8 Billion FCFA in 2012, with CAMTEL accounting for 58.1% of all these expenditures, while MTN and Orange accounted for 22.65% and 19.20% respectively. This huge discrepancy can partially be explained by the fact that CAMTEL as a parastatal maintains a significantly larger work force, and has the duty of managing the network infrastructure on behalf of the industry. For the cost categories, corporate expenses were largely predominant, averagely accounting for 77.61% of total annual expenditure by the industry, while all the other expenses (Plant specific, network and Access, and Customer operations) accounted for the remaining 22.39%. Figure 1 is a table of three graphs that offers a visual account of how expenses by the firms compared with each other, and how the various cost categories compared with each other during the study period. The graphs have been drawn to scale and the variables are uniform. For each point on the horizontal axis (Year), the point on the vertical axis (Expenditure) in the middle graph is a direct summation of the corresponding points along each panel on the left graph. Likewise, the same intuition can be used to compare the cost categories as corresponding points along each plot on the right graph sum up to the equivalent point along the middle graph.

Figure following on the next page

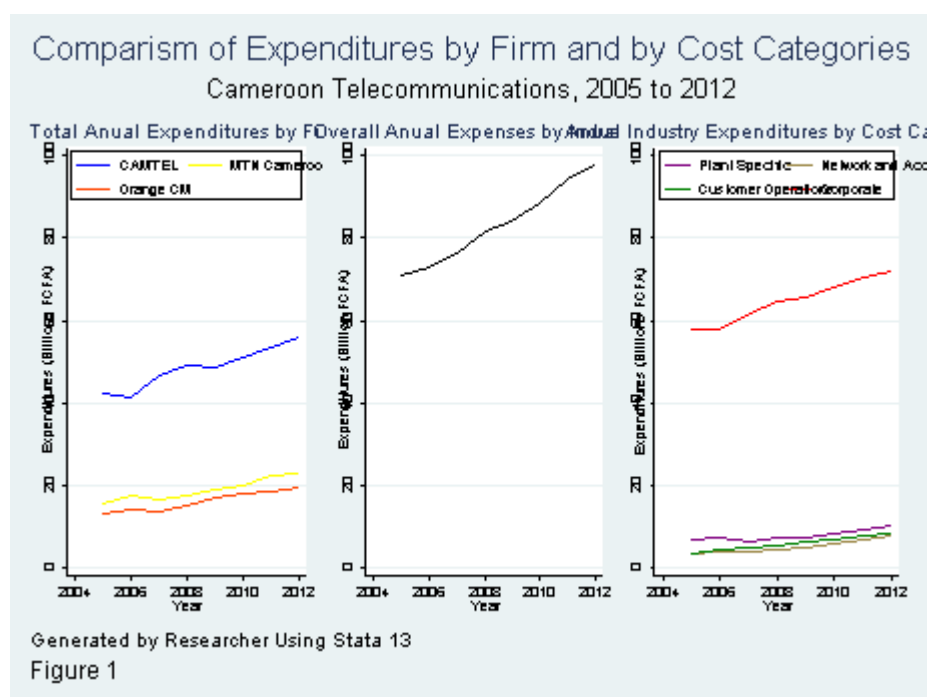


Figure 1: Comparison of Expenditures by Firm and by Cost Categories

Now, turning to the output categories, we observed that MTN dominates its two rivals in both national and international calls. Orange and CAMTEL are respectively second and third. However, in the Lines category, while MTN still dominates its rivals in terms of telephone lines, CAMTEL dominates in the number of internet subscriptions, while Orange and MTN respectively follow. The details are contained in Table 1.

Table 1: Average annual output (2005 to 2012)

Output Category	Level	Average Annual Output (2005-2012)			
		CAMTEL	MTN Cameroon	Orange CM	Industry
Volume of Calls (Millions of Minutes)	Local	240.2648	1276.753	1163.063	2680.0809
	International	46.67163	76.7125	68.1125	191.49663
	Total	286.9364	1353.466	1231.175	2871.5775
Number of Lines (Thousands)	Telephone	403.3007	3583.833	2985.199	6972.333
	Internet	67.807	23.824	28.4545	120.0855

Source: Generated by Researchers Using Data from Multiple Sources

Now, turning to the analysis of how output diversity influenced the operating costs of telecommunication firms in Cameroon, let us look at the results of the seemingly related regression equation (SURE) model represented by Equations 4 to 7. These results are summarized in Table 2.

*Table 2: Regression results (coefficient estimates with * signifying significance at 5% level)*

Equation	Parameters					
	Intercept	Capacity Utilisation	Scope Calls	Scope Lines	R square	Chi square
Plant Specific Expenses	-16.7101*	-3.28955*	1.85052*	16.92185*	0.9763	988.23*
Network and Access Expenses	-13.92665*	-3.384342*	1.603654*	13.99789*	0.9300	318.88*
Customer Operations Expenses	3.276634*	-.513975	-1.124269	.3972933	0.3331	11.99*
Corporate Expenses	-69.93812*	-6.851383*	-.6330115	85.85113 *	0.9750	937.10

Source: Generated by researcher on Stata 11 using data from multiple sources.

As can be observed, the percentages of the variations in operating cost accounted for by the explanatory variables range from 33% to 97.5% in all the four equations. The Chi square tests for goodness of fit are all significant. However, the estimates do not generally turn out as hypothesized. The variables that capture scope economies (scope calls and scope lines) turn out as follows: The coefficients of Scope lines are positive in all four equations, and significant in all but the customer operations equation. The implication is that the greater the diversity of access lines the higher the levels of operational costs for the firms. Banker et al (1998) suggests that with diversified access services provided to different customer groups in a given network, activities become fungible and costs levels can be reduced. However, the nature of access line diversity considered in Banker et al (1998) is very different from the one employed in this study. They use a line typology that includes Single business lines, multiple business lines, residential lines, public lines, mobile lines, and special access lines. With the introduction of the prepaid marketing option for telephone consumption, mobile lines dominated the landscape of telephone lines in Cameroon significantly. More so, fixed and mobile lines are already provided by separate entities and I adopted a line typology that would be common to all firms. I used this same logic in the consideration of internet lines. Different technologies like Wi-Max, Wi-Fi, EVDO, GPRS, and CDMA are currently deployed by different firms for the provision of wireless services alone. Another factor that may be vitiating against the full enjoyment of scope economies by telecom firms lies in the way these lines are provided to consumers. Most of the terminal equipment like SIMs and modems, and at times telephones are acquired and provided exclusively by the operators, with an access charge that does not cover the purchase price and no rent included. In some cases, the equipment are sold with service bonuses valued far above the access charge, making some consumers to purchase these equipment, use up the bonuses and then abandon the equipment. It is therefore important that authorities re-examine the conditions under which concession holding firms are permitted to compete in the data market. What we infer from these result is that concession firms make huge profits from the calls (voice) market, but then leverage these resources to offer services at a less profitable data (internet) market, where most operators are small scale localized entities. These market conditions may appear beneficial to end users in the short run, but hinder innovations and investments which are essential for the long term development of the market. Also, we used the variable scope calls to capture the relative concentrations of domestic and international calls in the firms' call mix. Scope calls is negative in the last two equations as hypothesized but the coefficients are both insignificant, while they are significant and positive for the first two equations, implying that the provision of diverse types of calls is cost increasing for the firms.

This result is not very surprising. Technological complexity in the exchange may be vitiating against the full enjoyment of positive benefits that arise from activity sharing. International calls require different types of equipment such as trunk switches. Consequently, the scope economy impact on costs can be vitiated since additional plant-specific capabilities have to be created within the firm. These capabilities may not always be easily leveraged across the rest of the firm. In such situations, we will expect the provision of international calls to increase plant specific expenses as shown by our results. In addition, increased access to the internet and the proliferation of VOIP and free video chat services like Messenger, Skype and Google hangout have largely rendered mute the need for international calls through the telephone exchange among internet users. This shift has largely biased the concentration of calls in favour of domestic calls. Another factor that may lead to cost increases, particularly access expenses when international calls are provided is the need by domestic firms to pay termination charges to foreign companies. Although these costs can be shifted to consumers, the resulting high prices are demand and hence revenue reducing. The only variable to turn out as hypothesized is Capacity utilization which is negative for all four equations and significant in all but the Customer operations equation. This indicates that average operating costs are lowered with higher capacity utilization, supporting expectations. This evidence is also consistent with previous telecommunications cost studies (Waverman, 1989), and sheds light on the importance of fully utilizing the fixed infrastructure in place to recover all associated costs. Local telephone companies are localized monopolies primarily because it is wasteful to duplicate assets. In the case of Cameroon where the telephone companies are national concessions, the sharing of critical infrastructure is a useful way to enhance network capacity utilization. With modern technology available, the capacity for providing certain services like message transmission has gone up. Those companies that encourage usage of their infrastructure tend to have lower unit operating costs. In Cameroon, some concession holding firms have found different innovative ways of encouraging the use of extra capacity in their networks. Call bonuses and discounts are provided to consumers during low pick hours like nights and Sunday mornings, and are specifically designed to discriminate in favour of low end users. Unlimited SMS, MMS and Data volumes are provided on premium charge or provided as bonus bundles when other services are purchased. However, it is also important to consider the cost benefits of high capacity utilization against the quality concerns that automatically arise when telecom networks are used at full capacity. It is important that firms maximize the use of their installed capacity to the extent that the network is not fully saturated. My overall results against the presence of economies of scope in Cameroon's telecom sector are also consistent with some previous telecommunication studies. For instance, Shin and Ying (1992) concluded that the cost function is definitely not sub additive, arguing therefore that efficiency gains could be achieved if the local exchange carriers were broken up. Leggette (1994), considered the cost implications of jointly providing two services: private branch exchange and main station telephones. He also conceded that there were no economies of scope to be derived from the joint provision of these two outputs. However, some important reservations have to be made to my overall results. The distribution of costs is estimated on the basis of current services and does not take the network requirements of future services into account. The cost of services demanding more bandwidth such as the triple play (Television, Telephone, internet), HD TV, Online video, online games, video conference, and video control are much more sensitive to distance than, for example, the costs of a telephone call. This is because the capacity of the access link is often underutilized. This indicates that demand for new types of services in the future may have a substantial impact on the future cost-profile of network operators in Cameroon. New services will also affect the cost profile in another way. In some services, the basic network provision itself will only be a minor part of the service delivered. Value added network services and intelligent services both add new activities and introduce new types of costs to network operators.

Some of these costs such as development costs will be usage independent fixed costs, but they will not be regular sunk costs as service delivery will not be tied to specific geographical areas. Another important factor is the recent introduction of fourth generation (4G) licenses and the award of a new mobile license, which creates new possibilities of substituting plant and network equipment. As these new networks compete with existing ones and become part of hybrid networks, Industry-wide and Firm-specific cost profiles will continue to change.

5. CONCLUDING REMARKS

As telecom firms, regulatory and supervisory authorities in Cameroon seek better ways of enhancing the variety and quality of telecom services delivered to the public, it is important to make sure that the economic interests of all parties (Operators and Consumers) are served in an optimal fashion. Understanding the cost structure of telecom firms when they diversify production is crucial to this effort, given the central importance of cost in the internal allocation of resources within a firm, and in the determination of prices for consumers and profits for operators. This study contributes to this effort by searching for evidence of falling operating costs as telecommunication firms increase the types of products in their output mix. Falling operating costs as output is diversified (economies of scope) is the evidence of production efficiency and has some positive welfare implications for all market participants. However, I find compelling evidence that there are cost advantages to be derived from increased capacity utilization, but cost disadvantages resulting from the diversification of services for the service categories studied, call diversity and line diversity. This presents a genuine problem for the operators and authorities. As market penetration peaks for traditional telecom services and rapid technological growth makes more and more network capacity available to operators, they will rightfully seek out ways to maximize capacity utilization of these networks. It is the duty of the regulatory and supervisory authorities to make sure this extra capacity is utilized in ways that do not represent anticompetitive conduct. The following recommendations can greatly aid this effort. Presently in Cameroon, concession holding telecom firms are providing a multitude of services, some of which are hardly related to telecommunication in the first place. In order to ensure that such services do not create unfair competition in already established markets, authorities should mandate telecom firms providing those services to prepare separate accounting information for activities related to those services, and withdraw the licenses for the provision of those services if service delivery is not cost efficient. It is also important that the sector adopts a strategy of phone number portability, and that technological restrictions that limit the use of terminal equipment to specific providers should be banned, except in cases where the equipment is service specific and only one firm provides that service. This will help to ensure healthy competition in the provision of terminal equipment and safeguard the long-term welfare of the consumer. In order to enhance capacity utilization and benefit from the associated cost advantages, network operators should be encouraged to rent out extra capacity on their networks to third party service providers with an existing capacity to provide additional services in a more cost effective manner. Finally, it is in the interest of all the stakeholders in the sector that policies be driven by sound research, and current attitudes towards corporate secrecy are impeding this effort. I recommend that firms be made to comply with existing regulations on the publication of data, or encouraged to cooperate with researchers.

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POLISH GOVERNMENT'S POLICY TOWARDS INWARD CAPITAL FLOWS (INCLUDING DIRECT FOREIGN INVESTMENTS) AFTER THE SYSTEM TRANSFORMATION

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ABSTRACT

In the context of international capital flows, inward capital flows to a given country are affected, apart from natural conditions, by conditions that country creates for the functioning of capital. They testify to the degree of attractiveness of such country as a potential place of capital location. The conditions for foreign capital generate investment risk, which is one of the factors determining the inclination to invest abroad. One type of conditions for the inflow and functioning of foreign capital to a given country are political conditions, which are to be understood as the overall political relations in a given country, resulting from political views of important persons and groups. One of the aspects of political views in general are economic views of a given authority, which form the basis of the pursued economic policy, including policy with respect to the foreign capital. Transformation of the Polish economic system from centrally controlled economy to market economy called for huge capital outlays, which could not have been provided by limited potential of domestic financial accumulation. Therefore, efforts were undertaken to supplement the domestic possibilities of financing changes with foreign financial assets as supplementary in relation to the first group. The degree of such complementarity, rational from the point of view of economy's interests, was discussed. The objectives and assumptions of policy of subsequent Polish governments with respect to the foreign capital, in particular foreign direct investments (FDI), were described in relevant governmental documents. It is possible to distinguish two basic stages of governmental policy with respect to the foreign capital in Poland, namely before the accession to the European Union (EU), and in particular in the 1990s, and after the accession to the EU.

Keywords: *Foreign capital, Foreign direct investments (FDI), Governmental policy*

1. INTRODUCTION

Foreign capital was admitted, on a broader scale, to the Polish economy only after the system transformation and was meant to finance the restructuring and modernisation of economy as a supplementary source in relation to too low level of domestic savings. Earlier, in the period of real socialism, there were very significant restrictions in its' inflow. One of the factors influencing the interest of foreign investors in a given country is the attitude of its' authorities to foreign capital, reflected in adequate policy with respect to it. It is believed that even though the policy towards foreign capital of subsequent Polish governments was subject to modifications, it was not always efficient. There are concerns about the decisions of the present-day government, which is considered sceptical towards foreign capital. The primary objective of this study is to characterise the governmental policy in Poland with respect to the inward capital flows (with special attention given to direct foreign investments) starting from the system transformation. In order to implement the adopted objective, the method of analysis of relevant governmental documents was used.

2. GOVERNMENTAL POLICY TOWARDS FOREIGN CAPITAL IN THE 1990s

At the beginning of the 1990s, the problem of foreign capital was discussed in governmental documents, such as the premises of socio-economic policy for subsequent years, the Programme of Socio-Economic Policy for Years 1994-97 (Kozłowska, 2015, p. 136), mid-term

programme of socio-economic development: W. Kołodko's Strategy for Poland from June 1994 (foreign capital was mentioned already in its' draft, i.e. 44 Theses) (Kozłowska, 2015, p. 136) and the National Integration Strategy. The premises of socio-economic policy assigned a significant role to foreign capital in the restructuring of economy, encompassing not only types of economic activity (shaping the pro-export structure of economy as one of the directions of changes), but also the ownership structure. The government's policy was perceived through the prism of promoting foreign investors as important partners in the process of modernisation and rationalisation of various types of economic activity. At the same time, the necessity of creating conditions for attracting foreign capital other than enabling participation in privatisation of state companies, was strongly emphasised. Stimulation of the inflow of FDI compliant with long-term objectives of sustainable socio-economic development was discussed. In one of the most important governmental documents, namely the National Integration Strategy, the government announced the implementation of the programme of liberalising capital flows. Furthermore, the necessity of inflow of foreign capital was assumed in alternative concepts of Poland's development (strategic variants), which include the Premises of Economic Programme, based on knowledge and entrepreneurs' experience, prepared in 1993 by the National Chamber of Commerce and concepts prepared in various scientific centres. Views represented by certain governmental institutions, namely the contemporary Institute of Development and Strategic Studies, were dominant in some development alternatives (scenario of economic stagnation and scenario of economic revival). Generally speaking, the role of foreign capital in alternative concepts of economic development was discussed in the context of development strategy implementation, i.e. in particular in shaping the pro-export structure of economy (Kozłowska, 2015, pp. 136-137). In spite of the existence of relevant governmental documents, in reality the national policy with respect to FDI has turned out to be ineffective, due to the fact that it was not consistent and did not tackle the problem comprehensively. It did not have a long-term nature and application of ad-hoc instruments does not improve the international competitive position of a country and, what is more, prevents the construction of durable competitive edge. First of all, in the 1990s, the policy of attracting the FDI was primarily focused on the increase of share of strategic investors from abroad in privatisation of state property and no long-term and efficient mechanisms for procuring new investments were worked out. Thus, after exhausting the more attractive privatisation offer and slowing-down of privatisation, the inflow of FDI to Poland subsided (Kozłowska, 2015, p. 137). The Council for Socio-Economic Strategy i.e. an opinion-making and advisory body operating by the Council of Ministers, drew attention to this problem, as well as the inefficiency of the domestic policy with respect to the FDI in general, resulting in the loss of large investments to neighbouring countries, i.e. Czech Republic and Slovakia. In a report encompassing a period shortly after the accession to the EU, allegations with respect to the state policy in reference to foreign investments were formulated, such as: absence of a comprehensive strategy in the area of preferred types of economic activity, location, etc., too limited use of various instruments in the investment incentive policy, inadequate system of promotion, lack of significant improvement in removal of numerous investment barriers, which resulted in their growth, failure to use the opportunity to attract investors from non-Western countries. Among the conclusions resulting from the diagnosis of such state of affairs, attention was attracted to the necessity of coordinating and unifying the policy in the discussed range via changes of the social and political attitude on the central and on local levels. Simultaneously, a just opinion was expressed that the state policy in the area of the FDI should retain balance between stimulating the inward flow of proper quantity and types of foreign capital and protecting own economy from excessive drainage by foreign economic entities. In relation to this, it is necessary to monitor the inflowing FDI with respect to compliance with the long-term objective of sustainable socio-economic development (Bezpośrednie..., pp. 10, 15-16, 22-23).

3. GOVERNMENTAL POLICY TOWARDS FOREIGN INVESTORS IN THE CONTEXT OF EU MEMBERSHIP

In the meantime, the circumstances called for a new policy with respect to the foreign investors, i.e. taking into account Poland's membership in the EU, including the challenges set by the amended Lisbon Strategy and phenomena occurring in the global knowledge-based economy (Kozłowska, 2015, p. 138). These conditions forced the Polish government to conduct a modern development policy with respect to the rational use of the opportunities from membership in the European Union, primarily funds from the EU budget. Such policy should utilise the characteristics of Polish economy and society, which may be a source of the country's competitive advantage. The basic significance for the civilisation advancement is creation of adequate conditions for development (Polska. Twój..., pp. 33-34). Even if the governmental programmes made no direct references to the FDI, yet they determined the priorities of socio-economic policy of the government and its' implementation was, in assumption, meant to improve the attractiveness and the competitiveness of the Polish economy. With respect to the above-mentioned necessity of pursuing modern development policy, the Council of Ministers adopted the National Development Strategy 2007-2015 (NDS) on 29.11.2006, i.e. the basic governmental document of strategic nature, determining the objectives and priorities in the area of Poland's socio-economic development and conditions that should ensure it. As an overriding document, it formed a reference basis for other strategies and governmental programmes, also prepared by the units of territorial government. This was a basis for efficient use of domestic and EU funds to implement socio-economic objectives ensuring development. The Strategy's significant role was coordination of institutional and regulatory reforms with activities financed from the EU funds, in order to accomplish the best pro-development effect via synergy. The NDS takes into account the objectives and challenges set in the Lisbon Strategy, i.e. the basic strategic document of the EU, emphasising growth and employment. The major objective of the NDS was to improve the level and the quality of life of Polish residents. Its' implementation was planned as part of six priorities, determining the major areas of activities, such as: increase of competitiveness and innovation of economy, improvement of the condition of technical and social infrastructure, growth of employment and improvement of its' quality, construction of integrated social community and its' safety, development of rural areas, regional development and improvement of territorial cohesion. It was assumed that the implementation of the NDS should ensure long-lasting and quick economic growth invigorated, to a great extent, by investments and export. In the area of basic indices, the following assumptions were made: acceleration of the growth of the GDP, increase in the average rate of investment, growth of export per resident, fundamental increase in outlays on research and development activity, drop in the unemployment rate, macro-economic stabilisation (maintaining the rate of inflation on a level of approx. 2,5% annually and gradual reduction of the deficit in the sector of public finances) to reduce the growth of public debt (Polska. Twój..., pp. 34-36). With the aim of rational use of EU funds, the government adopted, in November 2006, a draft of the National Strategic Reference Framework (NSRF), also known as the National Cohesion Strategy (NCS), accepted by the European Commission in May 2007. The document set out strategic directions of Poland's development and determined priority areas of investments in years 2007- 2013, constituting an outline for implementation of key projects. The idea was to develop one uniform strategy encompassing all desired directions of development, also allowing for easier absorption of the EU funds. The major objective of projects included in the NCS was to maintain a high rate of economic development with the use of initiatives supporting reinforcement of competitiveness of regions and companies, as well as increase employment and create a greater number of attractive work places. Simultaneously, enhanced cohesion in the social, economic and territorial dimension was also assumed.

The directions set out in the NCS overlapped with the EU guidelines for all member states which faced similar challenges (Polska. Jak..., p. 9). The governmental policy with respect to the FDI was evaluated as unsatisfactory. This was confirmed by the Supreme Control Chamber after a control encompassing the period of 2005- 30.06.2007, i.e. the first years of membership in the EU and already after preparation of the NDS. The conclusions from the control have shown that until the moment of its' end, the government has not worked out a clearly defined strategy of attracting and using foreign capital in the form of FDI (Informacja..., p. 5).

4. PRESENT-DAY GOVERNMENTAL POLICY WITH RESPECT TO FOREIGN PRIVATE INVESTMENTS

The original basic document determining the policy of the present-day government holding power as of autumn 2015 was the Plan for Sustainable Development, prepared under the supervision of Mateusz Morawiecki, adopted by the government on 16 February 2016. It attracted attention to the fact that Poland invests less than it accepts investments and the dependency of the economic growth on foreign capital resulting from it. The costs of such dependency were calculated. It was emphasised that foreign capital is responsible for the key part of the Polish economy (2/3 of export, 50% of industrial production and 65% of the banking sector). Some key slogans included: development of Polish companies and capital as the basis for strong and wealthy Poland and more Polish economy in the national economy, which, inter alia, means the full use of own development potential, implementation of the strategic objective, i.e. multiplication of the Polish capital (financial, social, technological and in the area of education), providing the Polish companies with a positive impulse from the state. Foreign investments were discussed in the context of one of the tools of re-industrialisation as one of the five pillars of Poland's economic development, which were the basis of strong economy. The document included an invitation addressed to foreign investors, and sample criteria for looking for best investments included: creation of a centre of research and development, new, highly-paid work places, employment on the basis of employment contracts, establishment of a local network of contractors, transfer of know-how to Poland, location in regions threatened with unemployment. On the other hand, sample instruments of supporting best foreign investments included: grants for employment, grants for investments, income tax exemptions, real property tax exemptions, support from the EU funds, grants for training sessions (Plan..., pp. 6, 16-19, 30). Mateusz Morawiecki's Strategy for Sustainable Development Until 2020 (with a perspective until 2030), which constitutes elaboration and operationalisation of the Plan for Sustainable development, was adopted by the Council of Ministers on 14 February 2017. This is a key document in the area of mid- and long-term economic policy of the government. Issues pertaining to foreign capital were included in the area entitled Capital for Development. The starting point for such issues was insufficiency of domestic savings; implementation of investments in such conditions means a growth of foreign debt and aggravation of the net investment policy. With respect to it, an important supplement of domestic sources of funding development projects is the private foreign capital (Plan..., p. 119). Subsequently, major problems pertaining to the foreign capital discussed in the above-mentioned document are listed. It was ascertained that the key criteria for applying incentives to invest in the territory of Poland, lack inclusion of a potential investor in the country's development objectives. Poland is attractive for foreign investors, yet unfortunately for the traditional production; there are too few R&D and high-tech investments (excluding, inter alia, the automotive industry). Investments in industrial production are still necessary; they cannot be withdrawn abruptly even in the face of changing external conditions, as they constitute, in majority, significant outlays invested in permanent base. However, the proportions between the classic industrial investments and investments in research and development are unsatisfactory from the point of view of strategic objectives of economy.

The programme of supporting investments of great significance for the Polish economy for years 2011 and 2023 directs the support to production investments in the following sectors: automotive, electronic, household appliances production, aviation, biotechnology, agricultural and food, modern services and research and development. The final choice of sectors will be adjusted to Poland's development objectives. Furthermore, the document shows low efficiency of domestic institutions that support the investors, i.e. eight institutions which often operate independently from the support system on the regional level. The multitude of institutions operating in the same area and their individual priorities adversely impact the efficiency of activities and funds expended by them. The document also mentions the necessity of boosting investments, primarily in sectors enhancing the development potential of economy, in particular domestic and foreign private investments in manufacturing modern, innovative products of medium and high technique are desired, attractive for buyers in the country and abroad (Plan..., pp. 120-123). Initiatives aimed at reinforcing coordination of activities and cooperation among institutions attracting and servicing foreign investors on the national and regional level are planned, in order to improve services offered by them. On the other hand, support is scheduled for entities that service domestic investors with the aim of creating adequate conditions for them to develop Polish capital (in the country and outside of its' borders) (Plan..., pp. 120-123). Institutional changes focused on increased coordination of support for development investments were described, in particular the role of the Polish Development Fund (Polski Fundusz Rozwoju – PFR), which is meant to provide capital for Polish companies, e.g. by supporting the inflow of foreign investments (Plan..., p. 123). Among activities until 2020, in the area of capital for development, aimed at reinforcing coordination of support of development investments which are related to foreign capital, the following ones are planned: establishment of a framework for administration structures to support and service domestic and foreign investors, determination of absorption mechanisms of foreign intellectual capital (technological start-ups, academic personnel and staff managing knowledge transfer) and high-risk financial capital on the seed level (seed capital, FDI), commencement of promotional activities and active search for investors in the country and abroad. On the other hand, the activities after 2020 include further promotion of Poland as an attractive place for domestic and foreign investments and continuation of previously implemented activities related to active search for investors who declare innovative investments in Poland, conducive to re-industrialisation of economy, increase of potential for foreign expansion of Polish companies and growth of competitiveness of the Polish economy. As part of the strategic project called Investment Policy, a package of activities covering, inter alia, support for new investments implemented by Polish and foreign companies of key importance to boost the innovation of Polish economy, restructure production and improve competitiveness and thus create an image of Poland as a good place for investments was announced (Strategia..., pp. 124-125). At the beginning of September 2017, Mateusz Morawiecki announced the new investment policy at the economic forum in Krynica-Zdrój, which is a subsequent stage of his economic plan. He did not talk straightforwardly about foreign investments, but presented the major issues as part of the new concept. Among other things, he explained that tax preferences will depend on three basic factors: location of investment, nature of investment and quality of established work places. Tax incentives will be available in the entire area of Poland (without any territorial restrictions), yet observing the principles pertaining to the intended use of the area. Tax exemptions will apply to new investments which, in line with the definition of the European Commission, encompass establishment of new production plants and re-investment. A period of using tax exemptions will be determined, along with a transparent principle: the higher the intensity of public aid in the province permitted by the EU, the longer the period of exemption. The most important assumptions of the new investment strategy include introduction of a new standard of investor servicing.

In this respect, managing companies have to play a new, reinforced role in attracting investments. They will operate as part of regionalisation based on poviats and will serve as contact points in the region as part of the investor servicing system, as well as regional coordinators for granting public assistance in the area of tax exemptions and governmental subsidies. Such contact points for the investors ensure comprehensive servicing and significant assistance in eliminating investment barriers (e.g. in shortening the time of procedures). Morawiecki, having presented the bases of the new investment policy, concluded that as a result of planned changes, Poland will improve its' competitive position in relation to other countries of Central and Eastern Europe, whereas the differentiation of criteria with respect to quality, which is not present in other countries of the Visegrad Group, will allow for focusing the offer on investments that contribute the highest added value to economy. As of now, there is no official governmental document describing the new investment policy; however, a draft act on support for new investments was prepared, which is currently being processed. Maciej Lachowski, the minister's advisor in the Ministry of Development, confirmed the author's assumptions (resulting from access to the above information) that the new act will not include separate regulations for foreign capital, i.e. it will not be privileged and thus will be treated on a par with the domestic capital (Materials...).

5. CONCLUSION

Since the beginning of transformation of the socio-economic system, Poland was governed by representatives of various political options and with varied economic views, which were expressed in governmental documents containing premises of their socio-economic policy. The author has not ascertained any aversion towards foreign capital in any government holding power in this period. The problem of foreign capital was analysed in relevant governmental documents as a necessary supplementary source of financing restructuring and modernisation of the Polish economy with respect to the insufficient domestic savings. It has to be emphasised that the governmental policy towards foreign capital was subject to modifications, depending on the circumstances; in particular, the EU membership created the necessity of a new policy towards foreign investors. In spite of it, it is assessed that the governmental policy towards foreign capital has not been sufficiently effective. Unfortunately, Poland has remained attractive for investments in traditional production; there were too few investments in research and development and high technologies, i.e. modern pro-development sectors of economy. This leads to the conclusion that it is necessary to undertake activities aimed at changing this proportion. Fears of decisions of the present-day authorities, considered sceptical towards foreign capital, have turned out to be ungrounded. Even though a lot is said about excessive dependence of economic growth on foreign capital, yet with respect to the main principle that the foreign capital should supplement the domestic capital, the present-day government agrees with the views of their predecessors.

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THE EFFECTS OF CENTRAL TRANSFERS ON LOCAL OWN-REVENUE: THE CASE OF MOROCCO

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ABSTRACT

The purpose of this work is to evaluate the effects of transferred central revenues on local own revenues. The nature of these effects remains ambiguous according to theoretical and empirical literature review, especially for developing countries. Indeed, these effects are analyzed in the context of a behavior's imbalance that can be caused by decentralization between local expenditures and their coverage by local own revenues. We are interested in Morocco for the period 2002-2014, taking into consideration all the Moroccan territorial communities grouped by the 16 regions. The effects are analyzed for total own revenue and then for each type of own-revenues and taking into account the endogeneity effect of transfers as a key issue. It is concluded that an increase in transferred central revenues does not necessarily encourage local own revenues in Morocco. This unfavorable effect is more important for the poorest regions than for non-poorest ones.

Keywords: *fiscal decentralization, central transfers, local own-revenue, Morocco*

1. INTRODUCTION

While Morocco, like several developing countries, has embarked on the process of decentralization, the main issue is provision of sufficient resources by local and regional authorities to enable provision of basic public goods and services. In fact, decentralization should improve informational asymmetries, increase the political accountability of decision-makers and thus improve the efficiency in allocation of public goods and services through the two mechanisms of proximity (Hayek, 1948; Seabright, 1996 ..) and competition (Tiebout, 1956; Oates, 1972; Salmon, 1987; Besley and Case, 1995). For developing countries, decentralization represents an opportunity for the upgrading of public governance and reduction of poverty and populations' isolation. These basic services, such as household equipment, health, primary education and infrastructure, require substantial revenues. However, generally in developing countries, there is a structural imbalance between the capacity of local and regional authorities to mobilize these resources and the responsibilities delegated by central government. In this context, the transferred revenues remain an important lever to meet expenditure and are crucial for success or otherwise of decentralization in a country. Intergovernmental transfers modify the behaviors of local and regional authorities, which have been highlighted in several theoretical and empirical studies. Most stipulate that any increase in transfers entails a higher local public spending, which is equivalent to an increase in own revenues (Hines and Thaler, 1995). However, these transfers can be seen as a kind of exceptional resource, which may reduce the willingness of local authorities to improve their taxation. This ambiguity has also been proved by various results of empirical studies.

Some have demonstrated the positive incentive for transfers on the local authorities' own revenues, while others have shown the des-incentive effect¹. In this perspective we analyze, in this paper, the relationship between transfers and local own-revenues in Morocco as a developing country. The aim is to highlight the theoretical ambiguity about the incentive effect of unconditional transfers on own local revenues in an environment arched by rigorous budgetary constraints of Moroccan local authorities. This own revenues relate to revenues generated by local taxation (taxes managed by local authorities and taxes managed by the state on behalf of local and regional authorities). Based on data from the territorial authorities (regions, provinces, prefectures, communes) grouped by regions (16 Moroccan regions), a Panel analysis is carried out for the period 2002-2014. In our analysis, the effects of transfers on the total own revenues (Taxes managed by the CTs and taxes managed by central government) are taken into consideration at first, and then the effect on each type of tax revenue is noted. Then, we consider the endogeneity effect of transfers as a key question. We then proceed by two types of analysis: static basic model (MCO) and dynamic model (GMM system). Then we check this effect by distinguishing between the regions according to their wealth (the very poor regions and the non-poor regions) and by distinguishing according to political affiliation of presidents of territorial collectivities.

2. LITERATURE REVIEW

According to the theory of fiscal federalism, first and second generation (Oates, 2005), the effects of decentralization are classified according to the three branches of public economics defined by Musgrave (1959): resource allocation, income redistribution and economic stabilization. The expected effects of decentralization are a better allocation of public goods and services and greater efficiency in their production. These effects result from two major mechanisms, namely proximity and competition. Because the political objective of macroeconomic stability is pursued at the national level, the enhancing of efficiency through the distribution of grant resources is a consideration of the distribution of intergovernmental transfers. These transfers aim to improve efficiency and ensure a more equitable distribution of resources by redistributing public resources through the intergovernmental grant system (Boex and Martinez-vazquez, 2005). Likewise, intergovernmental transfers modify the behaviors of local and regional authorities, which have been highlighted in several theoretical and empirical studies. Most stipulate that any increase in transfers entails a higher local public spending, which is equivalent to an increase in own revenues (Hines and Thaler, 1995). However, these transfers can be seen as a kind of exceptional resource, which may reduce the willingness of local authorities to improve their taxation. This ambiguity has also been proved by various results of empirical studies. Some have demonstrated the positive incentive for transfers on the local authorities' own revenues, while others have shown the des-incentive effect². A microeconomic analysis approved that transfers can encourage local own revenue if the marginal utility of local public spending increases in local own revenue. The variation in this marginal utility of public spending in local self-generated revenues is explained by economies of scale in the provision of local public goods (eg access to drinking water, sewage system), individual preferences in public consumption (eg primary education, basic health care) or efficiencies of local administration in tax collection (Caldeira, 2014). Zhuravskaya (2000) has shown that local governments have almost no incentive to exert additional efforts to generate local own revenues when transfers increase in Russia. Buettner and Wildasin (2006) find in the United States a reduction in the generation of own revenues when external transfers increase.

¹ See Mogues and Benin (2012) for Ghana, Shah (1990), Rajaraman and Vasishtha (2000) and Panda (2009) for Brazil and India and Caldeira and Rota-Graziosi (2014) for Benin

² See Mogues and Benin (2012) for Ghana, Shah (1990), Rajaraman and Vasishtha (2000) and Panda (2009) for Brazil and India and Caldeira and Rota-Graziosi (2014) for Benin

They examined all the interrelationships between various local variables in public finances. While Dahlberg et al. (2007) find neither a crowding-in nor a crowding-out effect of intergovernmental transfers on local tax rates nor on local tax revenues. These results are similar to that of Mogues and Benin (2012) study in Ghana which show that transfers discourage local self-government revenues in Ghana. Also, Shah (1990), Rajaraman and Vasishta (2000) and Panda (2009) for India highlighted the unfavorable impact of transfers on local own revenues. While Skidmore's (1999) study of US state and local governments identifies a positive effect of higher government support to local governments on locally generated revenues. This, like several empirical studies, especially those of developed countries, where there is a favorable effect of the increase of transferred revenue on own revenues, following an unknown quality of transfers by reducing the budgetary constraints on decentralization efficiency and the risk of excessive borrowing. However, Caldeira and Rota-Graziosi (2014) proved the same in a developing and African country that is Benin. Transfers generally take two aspects: conditional ones that are selective and unconditional ones that are flat. In practice, the mechanisms for subsidies and transfers vary from one country to another, combining these two aspects. The common option is that unconditional transfers provide low incentives for local governments' own financing. To mitigate this trend, some countries have developed equalization schemes in which transfers depend on capacity and needs, especially in rich and federal countries. Some developing and emerging countries have also introduced tax performance criteria in their distributive formulas of these grants (Martínez-Vázquez and Boex, 2005). In Morocco, these transfers relate, on the one hand, to the part transferred from VAT (value added tax), IS (corporation tax) and IR (revenue tax), which form part of the first section of the budget (operating revenue) of Moroccan local and regional authorities and which accounts for a large part of the latter's revenues. While, on the other hand, there is an exceptional grant granted to cover the investments and which forms part of the second section of these Moroccan communities budget. Our analysis then focuses on impact of unconditional transferred revenues on own revenues because the investment grants are exceptional and are only granted if necessary according to communities' investments. These transferred revenues (30% VAT and 1% IS and 1% IR according to the previous regime before the adoption of the organic laws of 2015) represent a significant part of local and regional authorities' budgets. They include an equalization mechanism to reduce inequalities between regions, accounting for 60% of total revenues of local and regional authorities. These transfers amounted to 20 billion dirhams in 2014 compared to 7.8 in 2002, representing an average annual growth rate of 8.2%. These revenues consist of transfers of 30% VAT (89%), 1% of SI and IR (3,8%) and competition funds (7,6%). In addition, corporate tax and revenue tax revenues (1% of the national revenue of SI and IR) amounted to 757 million Dirhams in 2014, compared with 353 million Dirhams in 2005, representing a significant annual growth rate of 8.9%. This evolution is result of structural change in tax revenues in favor of direct taxes, particularly corporate tax.

3. ECONOMETRIC FRAMEWORK

3.1 Database used

For this analysis we use the financial and budgetary details of Moroccan territorial authorities from 2002 to 2014 provided by the General Treasury of the Kingdom which is under the Ministry of Economy and Finance. This was crucial for drawing the key endogenous and exogenous variables from our analysis. However, the regional population density variable was based on data of the High Commission for Planning in relation to regional population. Next, there was talk of using regional activity rate variable obtained from the same source. The regional GDP from 2002 to 2014 in millions of Dhs and at the 2007 price is provided by the Directorate of Studies and Financial Forecast DEPF, which is under the Ministry of Economy and Finance.

For the second analysis, which concerns the heterogeneity effect of revenues transferred from central government on own revenue by taking wealth into account. We calculated for the Moroccan regions the "Wealth Index". In fact, because of the abundance of data on household habitat conditions³ and the significant measurement error of bias associated with reported revenue or consumption, a substantial body of literature has developed a measure of wealth based on assets. Filmer and Pritchett (2001) conclude that the Demographic and Health Surveys (DHS) wealth index has actually outperformed the consumption or traditional spending index in explaining differences in economic status. This Wealth Index was calculated according to principal component analytical method PCA, whether for the year 2004 or 2014. We have respected all the steps for this analysis using the KMO test (Kaiser and Kayen) that showed us the families of components that have to be eliminated from the models so that we have significant results. Then, the components selected for each construct of variables were the subject of calculations leading to development of a composite index reflecting the weighting between information content provided by the selected components. After that, results allowed us to make a score in order to rank the regions according to this index. It ranges from -0.75 to 1.0669 in 2004 and from -1.0142 to 1.8147 in 2014.

3.2. Econometric models

The objective of our study is to study the causal effect of revenues transferred from central government to local authorities on own revenue. Our analysis is devoted to studying this for all regional and local authorities grouped by regions. Thus, the study is done for 16 Moroccan regions for the period 2002-2014. Initially, the analysis focuses on the correlation between transfers on total own revenues (taxes managed in favor of CTs and taxes managed by the State): Model (1). Then analyze for each category of tax revenues (Models (2) and (3)). We then analyze by distinguishing regions according to their wealth (Models (4), (5) and (6)).

$$RPr_{it} = \beta_0 + \beta_1 Tr_{it} + \beta_2 X_{it} + \varepsilon_{i,t} \quad \text{Model (1)}$$

$$TC_{it} = \beta_0 + \beta_1 Tr_{it} + \beta_2 X_{it} + \varepsilon_{i,t} \quad \text{Model (2)}$$

$$TE_{it} = \beta_0 + \beta_1 Tr_{it} + \beta_2 X_{it} + \varepsilon_{i,t} \quad \text{Model (3)}$$

RPr_{it} : Represents own revenue of local authorities per inhabitant by region i and which is the total revenue from taxes managed by collectivities and taxes managed by central government.
 TC_{it} : Represents revenues from local taxes and products managed by the local authority and
 TE_{it} : Represents the revenues from taxes administered by state for the benefit of local and regional authorities, which are: professional taxes, municipal services taxes and housing tax. The three variables are per capita considering the impact of population on own revenue especially with the existence of economies of scale in the collection of local taxes. **Tr_{it}** : are the revenues transferred by central government to the benefit of local and regional authorities per capita and region, which comes from the endowments coming from state VAT, IS and IR revenues. **X_{it}** Is a set of control variables for the robustness of the results. **TA_{it}** represents the activity rate by region to control the local economic conditions which determines the total transfers and the level of own revenues. Next, we consider population density by region **D_{it}** in order to grasp some potential economies of scale in the provision of public goods. We also take into account the effect of competition induced by the principle of fiscal decentralization "yardstick competition" which are spill-overs between regions **$revenue_{it}$** . Transfers by encouraging the increase of the local authorities' own revenues induce an increase in the neighboring communities.

³ We used several variables : household equipment, cooking method, mode of disposal of household waste, sewage disposal method, basic housing equipment, oldness of housing, occupancy status and housing type.

This variable is calculated by the vector of average of per capita own revenues of communities of neighboring regions j $revenuej_{it} = \sum wRPr_{jt}$. While w is a matrix which takes value 1 if the two regions share the same boundaries and value 0 otherwise. We also add the other transferred revenue ATr_{it} which are the investment grants. The regional GDP is also added PIB_{it} .

Secondly, we are interested in the heterogeneity of this effect between regions by taking wealth into account. For this we will use the Wealth Index previously calculated. Thus the equations of our estimates are following:

$$RPr_{it} = \beta_0 + \beta_1(Tr_{it} * QP) + \beta_2(Tr_{it} * QNP) + \beta_3X_{it} + \varepsilon_{i,t} \text{ Model (4)}$$

$$TC_{it} = \beta_0 + \beta_1(Tr_{it} * QP) + \beta_2(Tr_{it} * QNP) + \beta_3X_{it} + \varepsilon_{i,t} \text{ Model (5)}$$

$$TE_{it} = \beta_0 + \beta_1(Tr_{it} * QP) + \beta_2(Tr_{it} * QNP) + \beta_3X_{it} + \varepsilon_{i,t} \text{ Model (6)}$$

Thus, we can distinguish the poorest quintile $QP_{i,t}$ where the region is poor this variable takes value 1 and 0 otherwise. The quintile of the non-poor regions $QNP_{i,t}$ where the region is poor, the variable takes the value 0 and 1 otherwise.

Third, attention is paid to the heterogeneity of this effect across regions, taking into account political affiliation. For this purpose we will use a dummy variable which takes the value 1 if the political affiliation of the majority of territorial communities presidents elected by region is represented in the government $PO_{i,t}$ and the value 0 otherwise $NPO_{i,t}$. Thus the equations of our estimates are following:

$$RPr_{it} = \beta_0 + \beta_1(Tr_{it} * PO) + \beta_2(Tr_{it} * NPO) + \beta_3X_{it} + \varepsilon_{i,t} \text{ Model (7)}$$

$$TC_{it} = \beta_0 + \beta_1(Tr_{it} * PO) + \beta_2(Tr_{it} * NPO) + \beta_3X_{it} + \varepsilon_{i,t} \text{ Model (8)}$$

$$TE_{it} = \beta_0 + \beta_1(Tr_{it} * PO) + \beta_2(Tr_{it} * NPO) + \beta_3X_{it} + \varepsilon_{i,t} \text{ Model (9)}$$

Then we make a second dynamic econometric estimation where we introduce the delayed dependent variable of order 1 RPr_{it-1} or TC_{it-1} or TE_{it-1} or RPr_{it-2} or TC_{it-2} or TE_{it-2} by the GMM System.

4. RESULTS

Table 2 presents the results of static estimates of equations according to the fixed and random effects (ordinary least squares). For the static model, the results show a significant and positive correlation between transfers and own revenues, revenues from taxes managed by the CTs and revenues from taxes managed by State for the benefit of TCs. The coefficients are 0.28 for own revenue, 0.12 for taxes managed by the CTs and 0.14 for taxes managed by the State in favor of the CTs, all significant at 1%. Taking into account heterogeneity of this effect according to the level of wealth of regions, it can be seen that transfers to poorest regions have favorable effects only on local taxes managed directly by the TCs with a coefficient of 0.119. While the effect of transfers on the three types of revenue (own, taxes managed by the CTs and government-administered taxes) is significant and positive for non-poor regions. Then, taking into account heterogeneity of this effect according to political affiliation of majority presidents of TCs of the region with central government. It can be seen that the regions with political affiliation increase their own revenues and tax revenues managed by the CTs while the effect of transfers on the revenues of taxes managed by the State for the CTs shows no heterogeneity according to political affiliation. However, if one takes into consideration the dynamic version and one proceeds by robustness estimate of GMM system the results are completely different.

We assume a potential endogeneity of control variables and a strict exogeneity of independent variables and temporal dummies. Lagged variables are used as instruments in level regressions as in regressions of differences. Table 3 presents results of estimates of lagged dynamic model of order 1. The structure tests (Sargan Hansen AR (2) test) are used to estimate a second-order lagged dynamic model for identifying the indirect effect of endogenous variable on the exogenous one. Table 4 presents results of estimates for the lagged dynamic model of order 2 (with lag 2). Consequently, the results show a negative and significant correlation between transfers and own revenues and those resulting from taxes managed by State for benefit of CTs.. The coefficients are respectively -0.10 and -0.15. Only correlation between transfers and local tax revenues managed directly by TCs is positive and significant with a low coefficient of 0.0046. Thus, it can be said that the effect of transfers on local tax revenues managed directly by the TCs is favorable. While the effect is unfavorable for the three taxes managed by State in favor of the CT (professional, housing and communal services taxes). If we consider the heterogeneity effect according to the wealth, we find here also results which differ completely from the estimates according to the static model (all of which are positive). The results show that the effect of transfers on own revenues, whether for poor or non-poor regions, is unfavorable. For tax revenues managed by TCs the correlation is not proved and for taxes managed by State in favor of TCs the effect is unfavorable. Thus, it can be noted that the adverse effect of transfers on own revenue of CTs is greater for poor regions than for non-poor ones. If we consider the heterogeneity effect according to political affiliation, we can see that the effect of heterogeneity is not observed because results do not differ much for regions with and without political affiliation of the first estimates. Thus, in summary, an increase in transfers by 1 point has an unfavorable effect of -0.10 on own revenue and -0.15 on own revenues from taxes administered by State in favor of TCs. However, this effect is more important for poor regions than for non-poor ones. A 1 percentage point increase in transfers has an adverse effect on poor regions' own revenues of -0.22 compared to -0.10 for non-poor ones and on local taxes revenues administered to the TCs of poor regions of -0.234 against -0.149 for non-poor ones. While the effect of transfers on local taxes revenues managed by the CTs is positive, the effect of heterogeneity according to the wealth has not been proved in this effect. With regard to control variables, we can see that for the variable *revenue j_{it}*; it which takes into consideration the competition effect; is always significant at 1% and positive (for the static and dynamic model). This highlights the literature that stipulates the strategic complementarity between local tax policies (Brueckner, 1998 Caldeira et al., 2012). For density variable, the effect is also significant and positive. Thus the demographic effect is positive and present on own revenues, which is justified by the economies of scale in the provision of public goods and services. For the variable of activity rate, the effect is not significant for static model and using GMM system the variable has a significant but negative effect.

Table following on the next page

Table 1: Summary Descriptive statistics of the variables

	OWN_RE VENUES	R_TRANS FEREES	R_TRANS FEREES_ 2	REVENUE _J	T_ACT	PIB_REG	DENSITE	TAXES_G EREES_P AR_L_ET AT	TAXES_G EREES_P AR_CT
Mean	263.1759	470.1775	565.4662	234.4290	0.495875	43607.59	234.6447	104.9331	158.2428
Median	219.9578	364.4233	456.4760	211.7838	0.481000	37319.29	86.06979	83.83850	141.0887
Maximum	1704.212	3792.801	3957.959	1242.710	0.637000	163917.9	2644.582	656.0155	1170.492
Minimum	11.30681	59.82633	59.82633	14.65308	0.405000	1883.578	0.000000	0.000000	11.11903
Std. Dev.	185.4901	400.8893	459.9764	116.9381	0.058812	31952.44	554.4370	112.7478	106.5453
Skewness	3.537576	3.883241	3.000126	4.332708	0.547638	1.419442	3.502608	2.183098	4.870495
Kurtosis	23.29691	27.02442	17.72861	33.34090	2.198474	5.596006	13.65309	8.110610	42.65497
Jarque-Bera	3965.693	5471.799	2171.024	8380.137	15.96464	128.2537	1408.866	387.8122	14311.88
Probability	0.000000	0.000000	0.000000	0.000000	0.000341	0.000000	0.000000	0.000000	0.000000
Sum	54214.23	96856.56	116486.0	47354.66	103.1420	9070378.	48806.09	21616.21	32598.02
Sum Sq. Dev.	7053349.	32946007	43373557	2748578.	0.715993	2.11E+11	63631870	2605973.	2327139.
Observations	206	206	206	202	208	208	208	206	206

Sources: Results estimates from E-Views 9

Table 2: Estimation results for static models

Dependents variables / Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	RPr_{it}	TC_{it}	TE_{it}	RPr_{it}	TC_{it}	TE_{it}	RPr_{it}	TC_{it}	TE_{it}
Transferred revenue, Tr_{it}	0.28*** (0.073)	0.127*** (0.037)	0.14*** (0.053)						
$Tr_{it} * QP$ ou ($Tr_{it} * PO$)				0.15 (0.10)	0.119** (0.053)	0.036 (0.07)	0.17** (0.07)	0.10*** (0.04)	0.065 (0.052)
$Tr_{it} * QNP$ ou $Tr_{it} * NPO$				0.21*** (0.07)	0.10*** (0.036)	0.11** (0.05)	0.11 (0.08)	0.10** (0.04)	0.01 (0.06)
Density, D_{it}	0.13*** (0.035)	0.014 (0.10)	0.111*** (0.021)	0.18*** (0.029)	0.042** (0.017)	0.13*** (0.017)	0.19*** (0.03)	0.04*** (0.015)	0.14*** (0.02)
Revenue j, $revenue j_{it}$	0.76*** (0.08)	0.45*** (0.04)	0.358*** (0.057)	0.86*** (0.075)	0.46*** (0.039)	0.42*** (0.054)	0.85*** (0.07)	0.45*** (0.038)	0.39*** (0.05)
Others revenues transferred, ATr_{it}	-0.082 (0.061)	-0.008 (0.032)	-0.098** (0.044)	-0.046 (0.06)	0.02 (0.031)	-0.075** (0.043)	0.02 (0.06)	0.023 (0.034)	-0.01 (0.05)
GDP, PIB_{it}	0.0012** (0.0004)	0.0009*** (0.0003)	0.00067** (0.00032)						
Activity Rate, TA_{it}	4.28 (185.15)	46.90 (119.05)	68.99 (124.63)	-63.88 (183.90)	-138.31 (97.34)	77.82 (128.76)	-135.32 (185.16)	-145 (95.6)	3.62 (129.27)
C	-88.86	-69.09	-83.38	-18.30	45.41	-63.35	8.644	50.9	-37.52
Number of observations	201	201	201	201	201	201	201	201	201
Adjusted R2	0.75	0.87	0.53	0.74	0.79	0.53	0.75	0.79	0.54
R-squared	0.76	0.89	0.55	0.75	0.80	0.54	0.76	0.80	0.55
F-statistic (prob)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
HaussmanTest	0.0095	0.0611	0.0001	0.0018	0.0083	0.0005	0.0062	0.0017	0.0019
Radom Effect	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effect	No	Yes	No	No	No	No	No	No	No

Source: Results from the E-Views 9 estimates

Note: Robust standard errors are between parentheses. ***, **, and * indicate that the index is statistically significant at 1, 5 and 10% respectively

Table 3: Estimation results for dynamic models (with 1 lag)

Dependents variables / Model	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)	Model (9)
	RPr_{it}	TC_{it}	TE_{it}	RPr_{it}	TC_{it}	TE_{it}	RPr_{it}	TC_{it}	TE_{it}
Transferred revenue, Tr_{it}	-0.12** (0.05)	-0.05* (0.029)	-0.11*** (0.035)						
$Tr_{it} * QP$ ou $(Tr_{it} * PO)$				-0.22*** (0.056)	-0.08** (0.0336)	-0.179*** (0.04)	- 0.134*** (0.05)	-0.056* (0.029)	-0.11*** (0.036)
$Tr_{it} * QNP$ ou $Tr_{it} * NPO$				-0.12** (0.046)	-0.05* (0.029)	-0.11*** (0.035)	-0.14*** (0.054)	-0.063* (0.032)	-0.11*** (0.039)
Density, D_{it}	0.128*** (0.007)	0.024*** (0.004)	0.097*** (0.006)	0.123*** (0.008)	0.023*** (0.004)	0.094*** (0.006)	0.128*** (0.0079)	0.025*** (0.0041)	0.097*** (0.006)
Revenue j, $revenue j_{it}$	0.47*** (0.049)	0.23*** (0.028)	0.225*** (0.036)	0.52*** (0.051)	0.249*** (0.029)	0.262*** (0.037)	0.48*** (0.052)	0.244*** (0.03)	0.22*** (0.038)
Others revenues transferred, ATr_{it}	0.071* (0.039)	0.087*** (0.022)	0.0048 (0.028)	0.069* (0.039)	0.087*** (0.022)	0.001 (0.028)	0.08** (0.041)	0.093*** (0.023)	0.002 (0.03)
Activity Rate, TA_{it}	-454.3*** (75.03)	-181.7*** (42.18)	-252.5*** (55.006)	-281.3*** (89.27)	-131.9** (51.44)	-132.0** (65.06)	-452.1*** (74.88)	-182.6*** (42.85)	-249.23*** (54.98)
Dependents variables lagged (lag1), RPr_{it-1} or TC_{it-1} or TE_{it-1}	0.20*** (0.022)	0.27*** (0.024)	0.226*** (0.03)	0.202*** (0.022)	0.279*** (0.024)	0.216*** (0.03)	0.204*** (0.023)	0.274*** (0.025)	0.23*** (0.031)
Number of observations	192	192	192	192	192	192	192	192	192
Hansen test : p-value	0.70	0.635	1.000	0.946	0.955	1.000	0.935	0.953	1.000
AR (2): p-value	0.60	0.82	0.83	0.55	0.72	0.82	0.71	2.16**	0.79
AR (1) : p-value	-4.62	-2.95***	-5.68***	-5.74***	-3.06***	-5.79***	-7.47***	-6.07***	-7.90***

Source: Results from the STATA estimates

Note: Robust standard errors are between parentheses. ***, **, and * indicate that the index is statistically significant at 1, 5 and 10% respectively

Table 4: Estimation results for dynamic models (with 2 lag)

Dependents variables / Model	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)	Model (9)
	RPr_{it}	TC_{it}	TE_{it}	RPr_{it}	TC_{it}	TE_{it}	RPr_{it}	TC_{it}	TE_{it}
Transferred revenue, Tr_{it}	-0.10*** (0.049)	0.0046 (0.026)	-0.15*** (0.034)						
$Tr_{it} * QP$ ou $(Tr_{it} * PO)$				-0.22*** (0.056)	-0.031 (0.03)	-0.234*** (0.039)	-0.10** (-0.50)	0.002 (0.26)	-0.14*** (0.035)
$Tr_{it} * QNP$ ou $Tr_{it} * NPO$				-0.10** (0.056)	0.004 (0.026)	-0.149*** (0.034)	-0.119** (0.052)	-0.01 (0.028)	-0.14*** (0.037)
Density, D_{it}	0.14*** (0.007)	0.031*** (0.0035)	0.10*** (0.0057)	0.134*** (0.007)	0.029*** (0.003)	0.097*** (0.005)	0.14*** (0.007)	0.032*** (0.0035)	0.10*** (0.006)
Revenue j, $revenue j_{it}$	0.465*** (0.048)	0.234*** (0.025)	0.226*** (0.034)	0.519*** (0.049)	0.249*** (0.026)	0.263*** (0.035)	0.47*** (0.051)	0.25*** (0.027)	0.213*** (0.037)
Others revenues transferred, ATr_{it}	0.05 (0.038)	0.058*** (0.02)	0.018 (0.027)	0.046 (0.038)	0.057*** (0.02)	0.014 (0.027)	0.057 (0.039)	0.065*** (0.02)	0.013 (0.028)
Activity Rate, TA_{it}	-470.13*** (71.49)	-162.5*** (37.77)	- 276.5*** (51.39)	-239.7*** (87.10)	-93.7** (46.35)	-112.3* (62.21)	- 469.8*** (71.39)	-165*** (37.73)	-272*** (51.34)
Dependents variables lagged (lag2), RPr_{it-2} or TC_{it-2} or TE_{it-2}	0.146*** (0.02)	0.207*** (0.019)	0.19*** (0.027)	0.145*** (0.021)	0.21*** (0.019)	0.182*** (0.028)	0.144*** (0.021)	0.19*** (0.02)	0.195*** (0.028)
Number of observations	176	176	176	176	176	176	176	176	176
Hansen test : p-value	0.032	0.009	0.935	0.239	0.084	0.998	0.159	0.069	0.994
AR (2): p-value	-1.82*	-2.59**	-1.76*	-1.29	-2.41**	-1.15	-1.18	.	-0.62

Source: Results from the STATA estimates

Note: Robust standard errors are between parentheses. ***, **, and * indicate that the index is statistically significant at 1, 5 and 10% respectively

5. DISCUSSION

In summary, taking into account the endogeneity effect of transfers, it can be said that, in the case of Morocco, the latter have an adverse effect on own revenues and on revenues from taxes administered by State in profit of TCs (housing taxes, municipal and professional services). This unfavorable effect is more important for the poorest regions than for the non-poor ones. However, our results indicate that unfavorable effect in Morocco does not seem to be influenced by political affiliation of local and regional authorities' presidents. The political affiliation does not seem to affect tax effort and mobilization of own revenues as a result of the increase in revenues transferred. These results are similar to that of Mogues and Benin (2012) study in Ghana which show that transfers discourage local self-government revenues in Ghana. However, these authors also took into account the question of endogeneity, which is not the case for other studies such as those of Shah (1990), Rajaraman and Vasishtha (2000) and Panda (2009) India. However, they also highlighted the unfavorable impact of transfers on local own revenues. This, unlike several empirical studies, especially those of developed countries, where there is a favorable effect of the increase of transferred revenue on own revenues, following an unknown quality of transfers by reducing the budgetary constraints on decentralization efficiency and the risk of excessive borrowing. However, Caldeira and Rota-Graziosi (2014) proved the same in a developing and African country that is Benin. Caldeira et al. (2014) conclude its work with an inquiry into its outcome which seems to contradict the literature on this subject for developing countries. They question whether Benin is a simple counterexample or whether the result is more general in developing countries. Our study then reinforces the findings of literature review in developing countries and the result of Caldeira et al. (2014) seems lonely.

6. CONCLUSION

We can conclude that in Morocco, local authorities, even with more revenue from transfers, have fewer incentives to increase their own revenues. This shows the inefficiency of the increase in revenues transferred on fiscal effort that seems to decrease. Local and regional authorities provide less effort in collecting their own revenues in the presence of transferred revenues, contrary to what they can provide in event of borrowing, for example. In this case, they will be obliged to increase their own revenues in order to ensure a balanced budget after reimbursement of annual installments. However, a detailed analysis of the two components of own revenues, ie local taxes managed directly by the TCs and local taxes managed by the State for the benefit of the TCs, shows that the effect is more unfavorable with regard to the taxes managed by the State for the benefit of the TCs (housing taxes, municipal and professional services). This shows very little effort in the area of collection of these three taxes by the concerned departments including Ministry of Finance and which weigh heavily on budgets especially of urban communes. In this sense, we can also add the risk of corruption that lurks on Moroccan territorial communities, thus influencing the virtues of decentralization. Thus, the revenues transferred seem to give more revenue that is not used effectively or objectively. Rajaraman and Vasishtha (2000) conclude the same with the case of India and points out that corruption will lead the post-subsidy structure to a greater regressivity in the panchayat tax. Our results confirm the initial hypothesis resulting from the literature review in the case of developing countries which stipulates that flat-rate transfers reduce the tax effort and are unfavorable to the local authorities' own revenues derived from local taxes. The revenue transferred does not seem to encourage the fiscal autonomy of local and regional authorities in developing countries, contrary to favorable effects in the developed ones.

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TAX HAVENS AS AN INSEPARABLE ELEMENT OF REGIONAL AND GLOBAL ECONOMY

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ABSTRACT

The three recent major tax scandals, dubbed 'Lux Leaks' (2014), 'Panama Papers' (2016) and 'Paradise Papers' (2017), were on the front pages of the world's most popular newspapers and the topic of prime time discussion on leading TV and radio stations. The reports spoke of hundreds of influential people from all over the world, as well as thousands of well-known companies and institutions with international reach. The common element between these businesses, companies, institutions and prominent persons from more than fifty countries was money; more specifically, each of the scandals involved hundreds of billions of dollars in unpaid taxes lost by treasuries of countries across five continents. Interestingly enough, the problem remains unsolved despite official efforts to curtail practices used in tax havens and the public outrage against concealing income by members of the establishment or well-liked actors and sportspeople. Have tax havens become an inherent part of regional and global economy? What do these countries really do? What is their role in the modern world? Who benefits from their existence and activities and who loses? Why is it such a difficult endeavour to reduce the scale of their operations, influence and reach? It appears interesting to attempt to provide at least a brief answer to these questions.

Keywords: *classification, Lux Leaks, Panama Papers, Paradise Papers, tax haven*

1. INTRODUCTION

The existence of modern tax havens is undeniable proof of the age-old human drive to improve one's own material situation. Seemingly, the simplest way of achieving this goal is to reduce the cumbersome taxes one must pay and tax havens meet precisely this need in society. Through their activities and the services they provide, they allow people, corporations, institutions and various financial organisations to avoid unnecessary fiscal obligations. It is all greatly facilitated in the global information era due to the ability to instantly send and receive data via electronic information carriers. Nowadays, it is possible to transfer capital and money without the need to physically store or transport it. Thus tax havens have become an integral element of the modern world's economic activity, both regionally and on the global scale. Their services entail more than financial services, even in the broadest sense; due to their largely attractive location and their significant presence in some media, they also try to generate profit in other areas, such as tourism and recreation, architecture, undergraduate and postgraduate education, manufacturing and distribution of alcoholic products, industrial-scale production of gifts and souvenirs, production of numismatic products, printing postage stamps, creating and maintaining nature reserves, agriculture and farm animal breeding, legal and counselling services or advertising. They also profit significantly from staffing and servicing airplanes and cruise ships on local, national, international and sometimes even intercontinental routes. Despite the world economic powers declaring sanctions and restrictions to be imposed upon tax havens, they have mostly proved to be empty threats. The number of tax havens is increasing worldwide, the range of their services is growing and their political and economic state seems very promising and devoid of any major threats for the near future.

2. THE INCEPTION AND DEVELOPMENT OF TAX HAVENS

The desire for liberty and freedom from taxation has long since driven countless people to seek out places where the burden of tributes and feudal taxes would be little to non-existent. Emigrating from one's current residence could make this dream into a reality – under certain conditions. Either completely uninhabited or scarcely populated regions are a good fit, as the necessary condition is the lack of well-established administration to levy taxes. Historically, hostile climates and peripheral locations and thus large distances from main communication routes did not seem to deter migrants, nor did even significant risk undertaken to reach the destination in the first place. An example of such a process is the expansion of the Nordic peoples to the Faroe Islands in the Middle Ages or the settling of the Vikings in Greenland and Iceland. Today, historians know that one of the reasons behind such ventures into the unknown was indeed excess taxation in Scandinavia. Similar phenomena happened in Eastern Europe beginning at the turn of the 16th century, when a new population was born, commonly called the Cossacks, which settled in the scarcely populated steppes to the south of today's Kiev, between the northern coast of the Black Sea and the rivers Dniester in Ukraine and Don in Russia. They were mostly fugitive feudal peasants trying to avoid tributes, servants who had fled from their masters, as well as criminals and unjustly convicted innocents. They came mostly from the territories of Lithuania, the Russian Empire, Moldavia, Wallachia and Poland. The Cossacks formed a classless, military-administrative society, organised like a military democracy. During the entirety of its existence, it fiercely guarded its rights and liberties, including by paying only a symbolic tributes to the state. In fact it was a dispute over the level of taxation that sparked conflict between the Cossacks and Moscow and, as a result of a Russian military intervention, led to the fall of the Zaporozhian Sich - the Cossacks' polity – in 1775. The aforementioned Faroe Islands, Iceland, Greenland and the Ukrainian „Wild Fields” – the territory of the Zaporozhian Sich – were areas where taxes had not existed for a long period of time, mostly due to lack of efficient administration to enforce them. As mentioned before, it qualified these regions as optimal migration territory, a safe asylum free of all tributes and tithes. Nowadays, a tax haven also functions as such an asylum, but the basis of its operation is not lack of fiscal laws, but rather the existence of very specific ones, as well as efficient cooperation between many financial institutions along with leniency of the local administrative services. Tax havens became an efficient administrative and political system only recently, near the end of the 19th century. The first instances of a tax haven to have developed were the U.S. states of New Jersey and Delaware and ironically, all the indications suggest that they are likely to be among the last to be dismantled. Both were not, and still are not, strictly speaking, tax havens, but may be credited as the originators of the technique of 'easy incorporation' which is used by all modern tax havens. Easy incorporation rules, to the point that today one can buy a company 'off the shelf' and begin trading in less than twenty four hours is one of the key aspects of the tax haven strategy. The concept began to develop during the 1880s. New Jersey was in dire need of funds. A corporate lawyer from New York, a certain Mr Dill, persuaded New Jersey's Governor, Leon Abbet, to back his scheme of raising revenue by imposing a franchise tax on all corporations headquartered in New Jersey. Laws of incorporations were at that time still highly restrictive in Anglo-Saxon countries (a long term effect of the 1720 South Sea bubble). Corporate headquarters were attracted to New Jersey primarily due to its liberal incorporation laws, and to some extent by its relatively low rate of corporate taxation. When the Delaware legislature debated the drafting of a new General Incorporation Act in 1898, it sought to emulate the success of New Jersey. Here, again, a group of lawyers from New York played a prominent role in drafting the proposed act. It was obvious at the time that Delaware was enacting 'liberal' laws to attract corporate business (Palan R., 2009). Soon several other states followed New Jersey and Delaware in legislating liberal fiscal law, effective until this day: Wyoming, Alaska, South Dakota, Nevada, Arizona, Louisiana and Mississippi. (Bloc S.,

Muhlbaum D., 2017). These American states may have in fact invented the technique of attracting non-resident companies by offering amenable regulatory environments. Since the 1920s, some Swiss cantons have copied this practice. Threatened by the depression of 1929 and in particular by the series of bankruptcies in Austria and Germany in the early 1930s, the Swiss assembly began to debate an Amendment to the Bank Law to safeguard the Swiss banking system. Contrary to original intention, the Banking Act of 1934, in article 47, strengthened the principle of bank secrecy by placing it under the protection of criminal law. The new Swiss law demanded ‘absolute silence in respect to a professional secret’, that is, absolute silence in respect to any accounts held in Swiss banks – ‘absolute’ here means protection from any government, including the Swiss. The law makes enquiry or research into the ‘trade secrets’ of banks and other organizations a criminal offence. The law ensured that once past the borders, capital entered an inviolable legal sanctuary guaranteed by the criminal code and backed by the might of the Swiss state (Palan R., 2009). Soon after WW2, the London government followed the example of the Swiss and created their own tax haven in their then-colonies Bermuda and the Bahamas. Ever since, the process of establishing new tax havens started intensifying. While back at the end of the 19th century there were only two areas whose legal structure resembled that of an imperfect tax havens (the US states of New Jersey and Delaware), in 1934 the first such actual territory was created in Switzerland, and by the end of the 1940s there were three or four of them. In the 1960s, either six or seven areas worldwide could be considered active tax havens, and at the beginning of the second decade of the 21st century, in 2011, there were 66 of them. Today, in 2018, their number is estimated to 73 and new ones are arising as we speak. They currently exist on all continents or in their immediate vicinity (e.g. the Kingdom of Tonga, Niue or the Republic of Vanuatu, all located close to Australia on the Pacific Ocean), with the exception of the frigid, uninhabited Antarctica.

3. THE CONCEPT AND CHARACTERISTICS OF A TAX HAVEN

Since the name ‘tax haven’, while accurate, carries a very negative connotation to the broader public, the countries or dependent areas to which it refers strongly prefer to call themselves ‘international finance centres’. Practically speaking, however, they are typically referred to as either ‘offshore areas’ or ‘offshore jurisdictions’. As the name implies, offshore firm, while typically registered on a tax haven’s territory, in reality operate outside its borders (Grzywacz J., 2011) and their legal status is most often a company. Both production and services can be offshored. Banks, insurance companies, hedge funds, private trusts, manufacturing companies and various commercial firms are often offshore companies. Conventionally, to qualify as a tax haven, an area should have several specific characteristics and fulfil certain requirements, at least for the foreign investor. The most important of them are (Gluchowski J., 1996):

- low tax rates – most importantly;
- a stable political and economic situation;
- strict financial and banking secrecy legally and functionally enforced;
- no foreign exchange controls;
- the possession of modern telecommunication and digital transmission media;
- reliable transport connections to the entire globe;
- a convenient and liberal legal system;
- the ability to cater to an investor’s individual needs.

Theoretically, a tax haven is supposed to offer companies, institutions and individuals more favourable financial terms than their home country would, and as recognised by international fiscal law, this is their economic area of operation. There are various legal offices, counselling companies and brokers that can assist one in this endeavour. It is no secret, however, that these businesses step far outside the bounds of international law with the help of liberal laws,

favourable attitudes of local governments, as well as banking and financial secrecy, and will miss no opportunity to quickly make a large profit for their customer. The ‘Lux Leaks’ (2014), ‘Panama Papers’ (2016) and ‘Paradise Papers’ (2017) scandals have clearly shown that tax havens are indeed very far from simply a fiscal relief for individuals and international companies. Instead, their real objectives are to help obfuscate their clients’ actual earnings, conceal large amounts of illegally acquired funds and launder then immediately recirculate dirty money – the latter being the most profitable. Dirty money typically comes from illegal activity, such as drug dealing, organ trafficking, antique and general smuggling, human trafficking or prostitution. However, services of tax havens are employed also by the governments of international political giants – for gun trade, bribing politicians, financing revolutions in countries with the ‘incorrect’ political orientation, securing lucrative construction contracts, offering bribes or ‘gifts’ in exchange for the ability to place favourable orders for national industry, financing political oppositions, supporting various radical organisations, getting together right-wing quasi-guerrilla groups, engaging in hybrid warfare or ransoming hostages.

4. THE CLASSIFICATION OF TAX HAVENS

Efforts to clearly and consistently classify tax havens go in tandem with the rapid process of their formation. To date, there are a dozen or so different but consistent classifications. These divisions are made along the lines of the most characteristic criteria of tax havens, and several examples are given in subsequent chapters; by no means do they include all the relevant territories, they merely exemplify the subject.

4.1. Tax havens by geographical location

Nowadays, tax havens exist everywhere on the planet, with the exception of the inhospitable Antarctica; this is to be expected, however, as it is an uninhabitable land. Below is a list of examples of tax havens on each of the other continents:

- Africa: Botswana, Djibouti, Gambia, Liberia, Mauritius, Morocco (a free economic zone in Tangier), Namibia, South Africa, Senegal, Swaziland, Tunisia.
- Northern and Central America / The Caribbean: the Netherlands Antilles, Belize, Barbados, the Bahamas, Bermuda, the British Virgin Islands, the Cayman Islands, Panama, Saint Lucia, Saint Pierre and Miquelon, the US (Arizona, Delaware, New Jersey, Oregon and Nevada).
- South America: Bolivia, the Republic of Guyana, the Falkland Islands, Peru, Uruguay.
- Australia and Oceania: the Cook Islands, the Republic of Fiji, Guam, the Republic of Kiribati, Samoa, the Kingdom of Tonga, the Republic Nauru, Niue, the Republic of Palau, Solomon Islands, Tokelau, the Republic of Vanuatu.
- Asia: Bahrain, the Nation of Brunei, Hong Kong, the Kingdom of Jordan, Kuwait, Macau, Mongolia, Singapore, Lebanon, Labuan (a federal territory of Malaysia), Qatar, United Arab Emirates.
- Europe: Andorra, The Channel Islands (Jersey, Guernsey, Alderney), Gibraltar, Liechtenstein, Malta, the Isle of Mann, Madeira, Monaco, Switzerland, Svalbard, the Grand Duchy of Luxembourg.

There are reasons behind the fact that tax havens are located even in the furthest parts of the Earth. Firstly, they often form a symbiotic relationship with global financial hubs. Secondly, they contribute to rapid economic growth of their territories, and in consequence, of neighbouring territories as well – often underdeveloped themselves. Finally, they improve the local economic situation in a constant and balanced manner and even in unfavourable times.

4.2. Tax havens by their fiscal situation

Tax havens can be divided into six different groups based on their fiscal situation as per their current laws (Gluchowski J., 1996). This classification included a variety of state organisms: sovereign countries, dependent territories, autonomous areas, as well as certain still existing dependencies and colonies.

Group 1: Countries which do not impose any taxes upon residents. By their nature, they are closest to the epitome of a 'tax haven' to those for whom they would provide services and economic security. There are two such areas, where no tax is levied by the state – the Bahamas and the Principality of Andorra, a country in the Pyrenees.

Group 2: Countries and territories where only profits made domestically are taxed, while foreign profits are tax-free. This category includes Costa Rica and Hong Kong (officially the Hong Kong Special Administrative Region of the People's Republic of China, which will benefit from privileges it gained during the British rule at least until 2047).

Group 3: Countries which do not impose tax on domestic profits or capital, but do on foreign profits. An example of this is Monaco. All companies established there are treated as residents of Monaco, but even foreign firms can be ran and administered via local companies, which then does not impose any tax burdens upon the foreign company itself (Lipowski T., 2002).

Group 4: Territories which do tax foreign profits of resident companies, but the tax is extremely low – even below 1%. This category includes the Channel Islands (Jersey, Guernsey, Sark and Alderney), located near the French coast. However, companies registered there must employ local residents as fake bosses in order to observe the current laws.

Group 5: Countries where tax is levied upon accumulated wealth (material goods) and not on current profits. This category includes Uruguay, located near Rio de la Plata.

Group 6: Areas where a combination of beneficial fiscal laws applies to natural persons. In southern Spain, for example, taxpayers who are also retired register their companies. This way, they are free from income tax and at the same time can run their business in Gibraltar, the nearby British colony. On this island there is no tax on stock profits or dividends, and neither is there VAT. Resident companies' foreign profits are not taxed, either, while local income is taxed at a relatively low rate of 10%. (Turalinski K., 2014).

4.3. Tax havens according to their reputation

Another interesting criterion of division of tax havens can be established by considering the international reputation they have. Two major groups can be outlined this way. Areas classifiable as tax havens can be divided into the following (Turalinski K., 2014):

Group 1: Those discriminated against by the OECD countries (the Organisation for Economic Co-operation and Development). Infamy with the OECD can be gained by any of the following: laundering dirty money, unfair tax competition, keeping deposit accounts of people discredited in the public eye (e.g. dictators or leaders of pro-terrorist countries), lack of transparency in regard to current fiscal laws, lack of compulsory disclosure of information about personal accounts, breaking the terms of exchange of tax information agreements enforced by the current legal system. This category includes Barbados, the Bahamas, Belize, Brunei, the Dominican Republic, Gambia, Gibraltar, Hong Kong, the Cayman Islands, Costa Rica, Liberia, the Grand Duchy of Liechtenstein, Macau, Panama, Samoa, Saint Lucia, Saint Vincent and the

Grenadines, Turks and Caicos Islands, the Republic of Seychelles and the Channel Islands. Switzerland is also often listed as part of this rather dishonourable collective.

Group 2: Those uncontroversial but which de facto either actually offer lucrative taxation to businesses with foreign capital or are gateways between tax havens and target markets. Countries from this group arouse justifiable suspicions as to whether they operate outside the bounds of international sales law, but the actions of financial institutions there are more transparent. They are also not officially blacklisted by the OECD. This category includes the USA (the states of Nevada, Delaware, New Jersey, Wyoming, Florida and Alaska), Great Britain (the City of London), the Republic of Ireland, Northern Ireland, Bulgaria, the Principality of Monaco, Lithuania, the Grand Duchy of Luxembourg, the Netherlands, United Arab Emirates.

5. A NEW APPROACH TO THE CLASSIFICATION OF TAX HAVENS

Existing economic theories can be used to describe the current events taking place in the area of operation of tax havens. Regional policy and regional growth theories seem particularly useful in framing data and accounting for phenomena occurring around tax havens after fitting them to current conditions and adjusting for the specifics of the area of interest. One such idea which, after necessary modifications, may be useful to describe how tax havens operate, is Raúl Prebisch's core-periphery theory.

5.1. Raúl Prebisch's core-periphery theory

Raúl Prebisch, a German-born Argentinian, is credited as the originator of the core-periphery theory in economy. Both economist and politician, he focused his attention on the issue of growth of South American countries. He laid the foundation for his new theory in the second half of the 1940s, after which it became the basis of another theory – the dependency theory, very popular in the in the 1950s and 60s. It described the process of economic growth of developed countries (ex-colonial metropolises and industrial powers) by acquisition of goods and materials from developing countries (Przygoda M., 2013). Dependent development as described in the theory means that the form and functioning of peripheral countries is subordinate to the needs of the core countries (Hryniewicz J. T., 2010). Indeed, the very growth of peripheral areas is dependent on the growth of the core (Kundera J., Szmyt W., 2008). Prebisch's theory is universal in that the mechanisms conditioning the core-periphery relationship are fractal, that is – observable on every scale: local, regional, national, international and global. Prebisch drew his conclusions by analysing the influence of the developed US economy on the entirety of South America, focusing particularly on outflow of elements such as capital and employment. According to Prebisch's theory, the core can influence the periphery both positively and negatively. The phenomena related to the core's positive influence have been grouped under the umbrella of 'diffusion' (or 'spread'), while the negative are termed 'suction' (or 'backwash'). Spread may include, for example, transfer of know-how to the periphery, new technologies, the positive influence of innovation, the inflow of capital, new investments, the introduction of higher and more uniform standards, higher quality of production and services. The core's optimal economic situation and growth of the generally influences positively the periphery's situation to the point where even territories with no capacity for self-improvement may develop if they grasp opportunities for growth provided by the core. On the other hand, examples of backwash may include unequal trade, economic and political dependence, the outflow of the intellectual and enterprise elites, disadvantageous division of labour or the core's monopoly on education centres (on many levels of education) and research hubs (Szul R., 2007). Initially, the theory suggested that to avoid backwash, the periphery must break free from the core's dominance.

However, with progressing globalisation and the growing perception of its benefits, the idea of separating the periphery from the core has lost its merit.

5.2. Tax havens in the core-periphery paradigm

Capital and funds accumulated in a tax haven's bank accounts are supposed to further increase their owner's wealth. This includes dirty money obtained from arms trade, drug trafficking, human trafficking, prostitution and other illegal activities. To work, these funds should then return to circulation – and they sometimes amount to hundreds of billions of dollars. Therefore after laundering, the money should be transferred to a large and relatively developed market in order to melt into its surroundings. This is why most tax havens are almost always connected to major global financial hubs; moreover, it is in the best interest of these most economically developed regions to support and take the advantage of the existence of tax havens. One can even discover a sort of a geographical and cultural pattern to the planning and execution of these dealings. When further analysed, this relationship stands out as a classic core-periphery model as described by Prebisch.

5.3. Tax havens in core-periphery systems

In core-periphery systems involving tax havens, cores consist of former colonial metropolises and current industrial giants, while small countries and the few fiscally friendly colonies and dependent territories that still exist today form the peripheries. Presented below there are several most significant economic systems in terms of core-periphery relationships.

Group 1:

- Core: London (more precisely – the City of London), Great Britain.
- Periphery (geographically nearer): the Isle of Man, the Channel Islands (Jersey, Guernsey, Sark, Alderney), Gibraltar, Northern Ireland, the Republic of Ireland, Malta.
- Periphery (geographically further): Barbados, Bermuda, Saint Lucia, Saint Vincent and the Grenadines, Turks and Caicos Islands, Saint Kitts and Nevis, the Pitcairn Islands, the Cayman Islands, the British Virgin Islands, the Falkland Islands, the Seychelles, the Kingdom of Tonga, the Republic of Fiji.

Commentary: The reason Great Britain could afford Brexit is that it is not economically dependent on the European Union – in London there is a de facto extraterritorial financial enclave regulated by a special bylaw: the City of London (commonly called the Square Mile since that is roughly its territory). It is one of the three most significant financial hubs in the world. The City of London hosts about 80% of European hedge funds and has its own stock exchange and several raw material exchanges. The Square Mile is also home to a great number of legal offices, as well as dozens of banks and insurance companies. Over 50% of all worldwide stock exchange operations take place on the London Stock Exchange. The City of London is considered to be the best organised tax haven in the world, funded with trillions of dollars' worth of capital flowing in from every corner of the planet. It uses its connections to tax haven countries of the former British Empire, as well as the English-speaking Commonwealth tax havens. It is the epitomic core-periphery relationship, based on a diffusion of innovation, financial know-how, investments and knowledge into underdeveloped countries, but with a backwash characterised by suction of capital and of the most qualified specialists, as well as uneven division of labour and economic and political dependency. Still, this decades-old system has made it possible for British overseas territories and colonies to make a giant civilisational leap and drastically improve the living standards of their denizens.

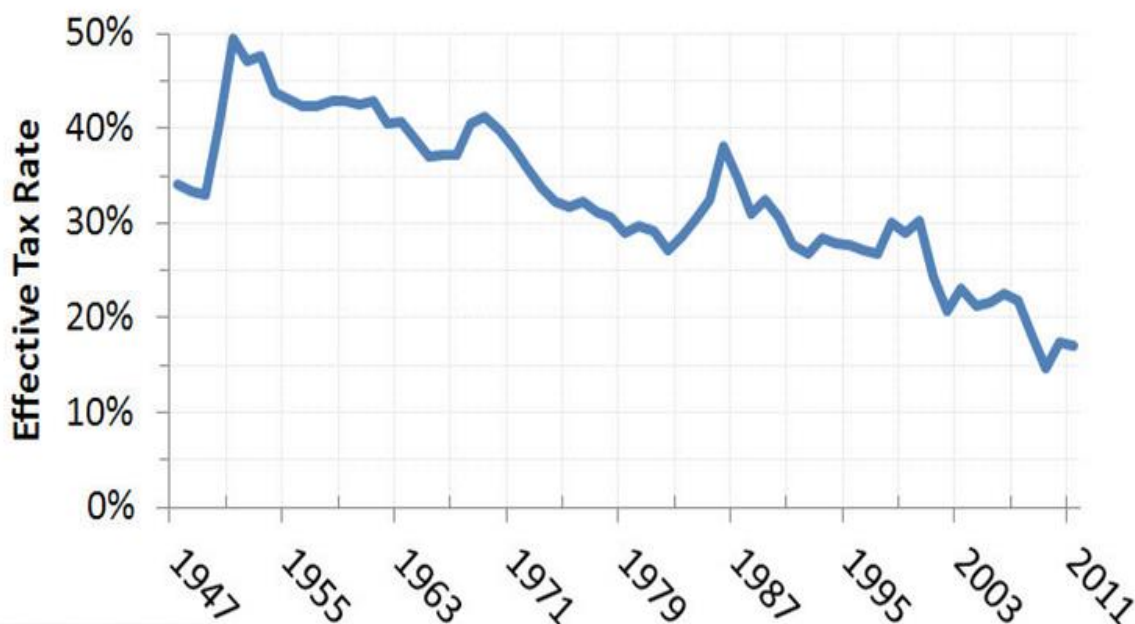
Group 2:

- Core: New York, the United States of America.
- Periphery (nearer – within the USA): Nevada, Delaware, New Jersey, Wyoming, Florida, Alaska, Arizona, Oregon.
- Periphery (further): the Bahamas, Puerto Rico, Guam, the Dominican Republic, the Virgin Islands of the United States, the Territory of American Samoa, the Territory of Guam, Panama, Costa Rica, Liberia, the Republic of Palau.

Commentary: The United States of America is considered to be the greatest economic force in the western world. The New York Stock Exchanges and NASDAQ, as well as banks in the Manhattan and their financial partners, all work in unison to make the US dollar the only global currency. Combined with the USA's political influence and military power, this makes it difficult for anything major in the world to happen without Washington's knowledge and approval. Hundreds of thousands of major American companies exploit the existence of tax havens in order to remain viable competitors and take advantage of all business opportunities. They transform into offshore companies, relocate to somewhere near the American continent and make money hand over fist by paying minimal taxes. Having saved up hundreds of billions of dollars this way, they then transfer it to the financial core of Manhattan. This procedure has flourished entirely legally for decades. Smaller American businesses without the international reach can still conveniently reduced their tax burdens on the national market: should they not want to take the greater risk of offshoring, they can establish their headquarters in a fiscally friendly state – Nevada, Delaware, New Jersey, Wyoming, Florida, Alaska, Arizona or Oregon.

At any rate, American companies' profit margin is ever increasing as they keep successfully and legally offshoring, as illustrated by Figure 1:

Figure 1: The United States Effective Corporate Tax Rate (1947–2011), US Federal Reserve via Wikimedia from <http://qcostarica.com/these-five-countries-are-conduits-for-the-worlds-biggest-tax-havens/>



American companies use clever and legal tactics to offshore profits and reduce their tax burden.

To acquire capital and funds from across the globe, the New York core uses the connections with its peripheries – federal territories and independent post- colonial countries, either formerly British or Spanish (Barbados, the Bahamas, and Puerto Rico). The NYC also has one more instrument to assist its global financial operations: the stock exchange of Euronext, the former consortium of several stock exchanges (the Paris, Amsterdam, Brussels and Lisbon stock exchanges) working as one for mutual gain. In 2006, the conglomerate was acquired by the New York Exchange, forming NYSE Euronext – which was, of course, headquartered in New York.

Group 3:

- Core: Shanghai (the People's Republic of China).
- Periphery (nearer): Hong Kong, Macau.
- Periphery (further): Mongolia, Russia, Europe.

Commentary: Nowadays one has no choice but to view the People's Republic of China as an economic superpower. Estimates indicate that China's GDP has already matched that of the United States in 2014, although as the data comes from a Chinese website, it is not universally considered trustworthy. As to the nearer periphery, it consists of two 'gateways' to China – firstly, Hong Kong, inherited by China from the British in 1997, with its excellent economic and financial infrastructure; secondly, the small country of Macau, a territory remaining to an extent in the shadow of Hong Kong and having a much smaller economic potential, inherited from the Portuguese in 1999. Both these areas are designated special administrative regions and will retain their economic and political systems for at least several more decades. Shanghai, with a population of over 24 million, is located on the shore of the East China Sea and houses one of the three Chinese stock exchanges, the Bank of China, the New Development Bank, which is connected to the BRICS nations, as well as the Shanghai Gold Exchange (SGE). As opposed to Hong Kong, Shanghai itself is supported by the government of China and the Communist Party of China. It is an economic core of a vast coastline which is basically a special economic district. It also has the advantage of a strategic location: essentially equidistant from Japan, Taiwan and South Korea, it is the home port of dozens of ships which, loaded with products of China, set sail from there every day, outbound to the USA, Australia, New Zealand, other Southeast Asian countries and South America. Mongolia, stuck in the middle of the Asian continent, with no access to the sea, has all but become a satellite country of China, but Beijing's ambitions are far greater. China and Russia have been forming ever-closer economic and political bonds for many years, to the point where the Chinese influence on Russia caused Moscow to turn the rudder of their national economy and politics from Europe-oriented to Asia-oriented. Still, China's aspirations and expansions are even greater than that – through the New Silk Road, Europe has also found itself in the Middle Kingdom's area of influence.

Group 4:

- Core: Tokyo (Japan)
- Periphery (nearer): South Korea.
- Periphery (further): Singapore, Brunei, the Federal Territory of Labuan (federal territory of Malaysia).

Commentary: Until the global financial crisis of 2007, Japan was the economic leader of Southeast Asia and a model core of a core-periphery system, where Tokyo was the structural centre, while the periphery was made up of the 'Asian tigers' – several quickly developing countries including Taiwan, Thailand, Brunei, the Philippines, Singapore, Hong Kong and South Korea.

However, due to the breakdown of its banking system, Japan was overtaken by China as the leader of the Far East. This is why, after the former Empire's power has waned, merely remnants of what could have been a Japanese economic zone are still functional.

Group 5:

- Core: Moscow (the Russian Federation)
- Periphery (nearer): Lithuania.
- Periphery (further): Bulgaria, Cyprus, the Republic of Nauru (until the end of the 20th century)

Commentary: The Russian Federation suffers from a lack of a proper periphery of their own and though it has for several decades made desperate attempts to establish it somewhere on the globe, these attempts always produce the same negative outcome. Russia's scheme of laundering dirty money in the Republic of Nauru at the end of the 1990s did not succeed, and neither did its later attempt to make Cyprus dependent on the capital fed to it by Russian oligarchy. However, Russian businessmen do appreciate the friendly Cypriot administration and their modest taxation. In 2013, before the collapse of their economy (the banking sector), there were over 40 thousand Russian companies registered on the island and Russian assets in Cypriot banks totalled to about 20 billion dollars. Back in 2004, the Republic of Cyprus was one of the wealthiest new members of the European Union; in 2001, their GDP amounted to 11.9 billion euros (15.600 euro per capita). Their economic growth rate was 2% in 2003 and the unemployment rate was a mere 3.5% and by then, Cyprus was already the second largest foreign investor in Russia – after Germany and just before the US. In 2011, according to the US Department of State, Cyprus invested over 70 billion dollars in Russia, making it – at least on paper – the Federation's largest business partner. Almost 50 thousand Russians either live or work on Cyprus, and in the island's capital – Limassol – they account for about 17% of the 180 thousand Cypriot citizens. Three exclusively Russian papers are published in the country and many shops and restaurants have Cyrillic script signs and traditional Russian products, goods and dishes (Korejba J., 2013). Due to its vicinity, almost 100 thousand Russian tourists visit Cyprus yearly. However, ever since Cyprus became a member of the EU, the condition of Russian interests there slightly deteriorated, as the government of Cyprus is now forced to comply with directives from Berlin and Brussels. Moscow, on the other hand, needs to try their luck with another region. Currently, their eyes are set upon the long-standing area of Russian influence – Lithuania and Bulgaria – although both are also members of the European Union.

Group 6:

- Core: Frankfurt (the Federal Republic of Germany)
- Periphery (nearer): the Principality of Liechtenstein, the Grand Duchy of Luxembourg, Kleinwalsertal and Jungholz (Austrian exclaves in Germany), Büsingen (German exclave in Switzerland).
- Periphery (further): Switzerland (the canton of Zurich, both Basel half-cantons, the cantons of Bern, Luzern, Zug, Schwyz, Uri, Glarus and St. Gallen).

Commentary: The Federal Republic of Germany is the most developed and economically powerful country of Western Europe. It is the engine driving the entirety of the European Union. Most major decisions concerning the future of the European federation are made in its capital of Berlin. Germany is also home to the Frankfurt Stock Exchange, one of the four greatest such institutions by market capitalisation. In many areas German companies are unrivalled due to the quality of production, innovation and modernity.

Brands such as Daimler AG (Mercedes vehicles), BMW, Allianz, Siemens AG, Deutsche Telekom, BASF, ThyssenKrupp, Bayer AG, TUI, Man AG, Continental AG or Lufthansa are certainly household names. In 2014, however, a group of individuals associated with the International Consortium of Investigative Journalists (ICIJ) disclosed the results of an investigation into the documents leaked earlier from the consulting company PricewaterhouseCoopers (PwC). The enquiry proved that more than 340 international corporations were avoiding taxes by utilising beneficial fiscal laws in Luxembourg. The group included international businesses such as IKEA, Apple, Pepsi, Citigroup, Credit Suisse, HSBC, J.P. Morgan, Merrill Lynch, Gazprom or Fiat as well as renowned German companies, among others: Bayerische Landesbank, Commerzbank AG, Gildermeister Group, WGZ Bank, IVG Immobilien GmbH, Ärztekammer Westfalen Lippe, the Volkswagen Group and Landesbank Baden-Württemberg (Bird M., 2014). The scandal uncovered by the journalists went down in history by the name of Lux Leaks. The facts clearly showed that even a law-abiding country such as Germany can be home to frauds on a massive scale. Soon after, again thanks to the work of the ICIJ, details of a mass tax avoidance scandal dubbed the Panama Papers came to light. It earned its name due to the fact that the incriminating documents were leaked from an office of the company Mossack Fonseca, based in Panama. This time the issue involved extremely popular and influential people attempting to conceal their funds within tax havens. The list contained names such as Vladimir Putin, the Chinese Prime Minister Li Peng, King Salman of Saudi Arabia, the Syrian president Bashar al-Assad, the masses' favourite star football player Lionel Messi or some family members of the British Prime Minister David Cameron. Unfortunately, German citizens were among some of the names as well. Hundreds of well-respected individuals were named (Panama Papers, 2016). In 2017, another scandal broke out when confidential information concerning individuals' bank accounts was leaked, revealing that they also concealed their funds in tax havens. The scandal is commonly known as Paradise Papers. The list of offenders included people from around the world, including the British Queen Elizabeth II and, unsurprisingly, further German names. Overall, the three scandals show that to lower the tax burden, even citizens of a country like Germany seek out relevant opportunities in the nearby areas (Luxembourg, Liechtenstein, Switzerland) or more remote ones (the Cayman Islands, Panama, Bermuda). The efficient and precise core-periphery is a great temptation to all.

Group 7:

- Core: Paris (France)
- Periphery (nearer): the Principalities of Monaco and Andorra.
- Periphery (further): Saint Pierre and Miquelon, French Polynesia, New Caledonia, Djibouti, Tunisia, Réunion, French Guiana, Lebanon, Switzerland (the cantons of Vaud, Valais, Jura, Geneva, Neuchâtel, Fribourg).

Commentary: Immediately after the British government, France became the second European economic power. The French authorities attempt to gain leverage in deciding the fate of Europe by close economic and political cooperation with Berlin; however, France also has aspirations towards its own independent politics on an international scale. As one of the nuclear-armed states and a standing member of the United Nations Security Council, France continually attempts to actively engage in Asia and Africa using political, economic and military means, mostly successfully. This process is greatly facilitated by the countries of the so-called Francophonie which used to be French colonies or mandate states (e.g. Lebanon). This core-periphery system works especially efficiently when France uses its connections with outside departments, commonwealths and dependent territories still under their control. To avoid taxes, companies and the richest individuals often employ the services of specialised institutions based

in the Swiss Confederation. The Swiss cities of Lausanne, Delémont, Bern, Neuchâtel Fribourg and Geneva are financial hubs which are especially strongly focused on servicing French customers.

Group 8:

- Core: Sydney (Australia)
- Periphery (nearer): New Zealand.
- Periphery (further): Samoa, Niue, the Republic of Nauru, Tokelau, Salomon Islands, Cook Islands.

Commentary: Australia and the nearby New Zealand form a tightly knit binary economic system. This pair of nations is currently the dominating political and economic axis in the South Pacific region (Przygoda M., 2017). Common cultural heritage and shared interests, as well as the legacy of British colonialism, have all provided a firm fundament for a solid core-periphery system. It is currently, however, threatened by very aggressively expansionist policies of China.

Group 9:

- Core: Rome (Italy)
- Periphery (nearer): San Marino, Vatican City, Livigno and Campione d'Italia (Italian enclaves in Switzerland).
- Periphery (further): Switzerland (the cantons of Grisons and Ticino).

Commentary: Due to Italy's economic weakness, the core-periphery system is merely illusory here. Italians will rather use the connections with the neighbouring Switzerland's Italian- or German-speaking cantons than with the tiny Republic of San Marino. The richest Italian citizens and shady Italian companies are also more likely to attempt to avoid taxes through the powerful City of London, as evidenced by the 1983 scandal involving Banco Ambrosiano, an Italian bank connected to the Holy See.

Group 10:

Core: Amsterdam (the Netherlands).

Periphery (nearer): none

Periphery (further): the Netherland Antilles (Curaçao, Sint Maarten, Bonaire and Sint Eustatius)

Commentary: The Netherlands is the biggest conduit to offshore tax havens in the world. Only five big countries act as conduit-OFCs (offshore financial centres). Together, these five conduits channel 47% of corporate offshore investment from tax havens. The two biggest conduits by far are the Netherlands – 23% and the United Kingdom – 14%, followed by Switzerland – 6%, Singapore – 2% and Ireland – 1% (Dutch News, 2017). However, the Netherlands typically rather uses the British Virgin Islands and the Cayman Islands to transfer funds. They do use their former Caribbean colonies such as Curaçao and Maarten to acquire their funds, but only to a limited extent; this is a case of a fairly weakly outlined core-periphery system.

Regardless of the strength of relationships between the core-periphery systems, it can certainly be said that they do exist. As outlined by the above examples, for some of the territories the system is in the process of dismantling, while for others it is strengthening by the day. Given the aforementioned facts, it is then certainly true that tax havens are an integral element of modern economy, both global and regional.

6. CONCLUSION

It is understandably controversial for companies and influential people to employ the services of tax havens. Even though public distaste for such dealings arises mostly due to media reports and commentaries – as the press and broadcasting companies tend to focus more on the sensational aspects of such events – it is nevertheless true that there is a very delicate matter of avoidance of fiscal burdens by the most privileged. Additionally, the line between tax avoidance and tax evasion is very thin. While tax evasion causes millions of dollars' worth of budget holes for various countries and is forbidden by law, tax avoidance, in addition to obviously facilitating the projects and investments of companies employing it, is not illegal. Many countries take individual legal measures and impose economic sanctions against tax havens (Lipowski T., 2004). Well organised activity is undertaken by the OECD countries and the EU, but there are also other international special interest groups consisting of the most important players in the international finance game. Examples include the Group of Four (France, Germany, the UK and the US) or the Federation of Tax Administrators, an organisation with similar goals and mission statement, consisting of Australia, Japan, Canada and the US. However, these bodies seem to largely fail to produce the expected results. The number of tax havens offering their services is increasing at an ever faster rate. In an attempt to explain the phenomenon of a tax haven, I have adapted the core-periphery theory formulated by Raúl Prebisch as far back as the middle of the 20th century. Modified to fit the context of tax havens, it suggests that the development of peripheral countries will depend on the development of the core. However, the reverse is also true: the core grows exponentially by utilising capital and human resources from the periphery – the core and the peripheries are therefore, perhaps non-intuitively, interdependent. Hopefully, I was able to present my improved version of Prebisch's theory clearly and concisely using real-life economic examples.

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LINKING BANKING SECTOR ADVERTISING TO PERSONAL INDEBTEDNESS: THE CASE OF CROATIA

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ABSTRACT

The global problem of growing household indebtedness is gaining momentum. It has become one of the prominent societal problems and therefore on the agenda of many governments as a key problem to cope with. So far it can be observed that great attention of both academic and government communities has been directed towards only one agent in the debt generation process – the borrower/household and its responsibility in mitigating the present level of indebtedness as well as accountable management of future new debt. The neglected problem area is the role of the second agent in the debt contract relationship, and that is the lender – mainly the banking sector. The problematization of the responsibility of banks in unsustainable levels of household indebtedness is founded on multiple phenomena as sources of inequality in debt contracting. The first phenomenon that makes banks the superior side of the relationship is massive information asymmetry. Banks are far more knowledgeable on all matters of financial nature than their counterparts (borrowers). The second phenomenon is banks' enormous advantage in resourcefulness, both material (technological) and intangible (intellectual capital) resources. Therefore, it is only fair to focus the research on shedding light on banking sector operations as drivers of excessive household indebtedness. To gain market share and stimulate demand for their financial services, mainly expansion of credit, banks heavily rely on non-price competition tools such as advertising, sales promotion, personal selling, and publicity. Hence, the goal of this research is development of causal links among banking sector advertising activities, their outcomes in credit market developments and personal indebtedness. The empirical analysis of the 15-year time series is performed by using quarterly data on Croatian banking sector advertising expenditures and household sector credits. The results of the Granger-causality analysis indicate that there is a one-way predictive causality in which the advertising expenditures of the banking sector can be used to predict household sector credits as a principal indicator of personal indebtedness.

Keywords: *Banking Sector Advertising, Personal Indebtedness, Responsible Lending, Household Credit*

1. INTRODUCTION

Households are the heart of any society, and in economic sense, they are the primary actor of consumption. The soundness of all processes connected with sustainability of aggregate consumption is of utmost importance in every economy. Yet, in the past decade we have witnessed the so far unstoppable surge in improperly managed cases of household over-indebtedness.

This phenomenon leaves behind numerous unfavorable consequences on families: loss of all assets including homes, and ultimately, detriment of both physical and mental health. The main body of research tries to explain the problem of personal indebtedness with reasons that lie mainly on the side of the borrower/- household. By contrast, this research aims to add to the existing literature on the role of banking sector in overstimulation of anticipative consumption by additional debt in the form of a bank credit. The specific focus of this paper is examination of advertising expenditures of banking industry as a generator of the above- mentioned additional household credit. The research in this subject area has so far been mainly of descriptive nature and this research is aimed to expand knowledge on the link between banking operations (advertising in particular) and indebtedness through econometric analysis of time series data. The paper is structured in the following way: the first section provides a review of literature dealing with ethical problems in performing contemporary banking operations. The unequal, neglected position of customers/households in the circumstances of great information asymmetry is outlined. There is also a review of different banking phenomena connected with the issue of irresponsible lending. In the next section, data on over-indebtedness in Croatia are used to help develop a hypothesis on the link between banking sector advertising and household credit. Next, the data collection and analysis methodology is explained. Thereafter, the results of the Granger causality test are presented and discussed, limitation explained, and recommendations for further research provided. Finally, conclusions and policy implications are drawn.

2. LITERATURE REVIEW

Banks have a critical role in the society, but this role is burdened by conflicting interests. Research confirms that the goals of bank's top executives and other managers are measured short-term (three months to one year), typically by profit growth and market share expansion (Villa, 2015, p. 158). On the other hand, from the macroeconomic perspective banking system has crucial importance as it provides long-term stability of the financial system and sustainable level of overall growth of national economies. These two goals need an interventionist action in the form of sound regulatory framework able to control undesirable consequences of banks' pursuit of their short-term goals. The growing problem of unsustainable level of household indebtedness has been recorded worldwide (Andresan-Grigoriu, Moraru, 2015; Frade, Pinheiro Almeida, 2015; Gutiérrez de Cabiedes, Cantero Gamito, 2015; Józson, 2015; Kempson, 2015; Méndez Pinedo, Domurath, 2015; Mentis, Pantazatou, 2015; Packman, 2014; Tokeley, 2017; Trading Economics, 2017; United States Courts, 2017; Vandone, 2009). Ramsey (2012) points out that over-indebtedness has become an important social and economic issue; moreover, it particularly affects more vulnerable households (lower income). This links the problem of indebtedness with the problem of poverty and magnifies the mediating role of regulators in tackling these issues. Banks declare in their codes of conduct that their key business values are "the highest personal standards of integrity at all levels, commitment to truth and fair dealing, commitment to quality and competence, commitment to the welfare and development of each local community" (Villa, 2015, p. 80) and many more, all in line with outstanding levels of business ethics and corporate social responsibility. However, evidence collected by researchers, consumer protection agencies and governments (Packman, 2014, p. 135) oppose these statements with numerous cases of irresponsible/reckless/predatory lending practices, many of which refer to advertising as the most important marketing activity prior to the lending transaction. Many European stakeholders provided the following examples of such unfair advertising and marketing practices (European Commission, 2009): disregard for or failure to calculate APRC (Annual Percentage Rate of Charge), the promotion of 0% introductory interest rates or interest-free credit, the advertising of a lower starting rate – called the 'rate of entry' – which is then employed only for the first few months, a lack of interest rate ceiling, floating

rate mortgages, 'buy now, pay later' advertisements that do not indicate that it concerns a credit or loan, advertisements of easy and direct access to credit, failure to mention administrative costs, inadequate information on terms and conditions, the possibility of the lender to unilaterally change conditions, unsolicited increases in credit limits, predatory lending - loan sharks and payday loans, sending direct advertising to already over-indebted borrowers involved in collective debt settlement procedures, revolving credit, consolidated loans and equity release products and interest-only mortgages. These practices are undertaken mainly by banks. Previous research (Škalamera-Alilović, Dimitrić, 2017) detected that many of the above practices are implemented in the Croatian banking sector. Another research (Ipsos and London Economics, 2013) indicates that provision of information at the advertisement and pre-contractual stage is poor to extremely poor throughout the European Union, measured by the level of compliance of creditors to the requirements of central regulation covering this matter – CCD (Consumer Credit Directive of 2008). As Osuji (2017) points out, advertising creates undue and excessive demand for consumer credit which has adverse consequences not only for individual consumers, but also the financial system as a whole. In an Australian study of community attitudes (Fear, O'Brien, 2009) 80% of survey respondents agreed that advertising encourages people to spend more than they earn, and there is a strong belief that lenders and regulators, not individual consumers, are responsible for the debt situation in Australia. Regulatory responses (legislation and guidelines) to such situation are scarce (e.g. Belgium, Malaysia, South Africa, Australia) (Solli-Hubbard, 2013). Despite the existing legislation there is a general lack of appropriate enforcement; it is therefore not surprising that such incomplete interventions (absence of control and sanction) failed to affect the debt levels; they are still high and rising. In his study of countries across Europe, North America, parts of Australasia, and beyond, Packman (2014) finds a commonality that he calls the neoliberal experiment that is a result of financial sector deregulation. The main goal of such experiment is to give primacy to the consumer, roll back the state, but still hold the regulator responsible for rising levels of personal debt. The view expressed in this paper does accept the vital role of regulation, especially its improvement in the implementation process, but also emphasizes the need for fundamental turnaround in the implementation of responsible, ethical, voluntary practices in the operations of the banking sector itself. An example of such an attempt has been found in United Arab Emirates (Martin, 2013, Kassem, 2015) where the banking sector aims to regulate itself by implementation of an industry code of conduct (UAE Banks Federation, 2014) with a key target of the strategy being misleading advertising about loans. Customers would expose bad services and an industry body would name and shame irresponsible lenders. There is still no information about the outcomes of this positive attempt, only the fact that it has been five years since the inception of this idea, and there is no implementation of any concrete tools for customer feedback (web page was announced in 2013).

3. HYPOTHESIS DEVELOPMENT

Credit market in Croatia shows a pattern of redirection of the banking sector principal market segment from corporate towards household and other (mainly state) sectors. The following table presents the scale of this undesirable shift from the viewpoint of national economy development.

Table following on the next page

Table 1: Structure of loan allocation of Croatian banks in % (Authors' calculations according to the data by Družić. 2001, Croatian National Bank, 2018)

Year	Corporate credit	Household credit	Other credit
1994	69,9	28,8	1,3
2006	40,0	39,4	20,6
2016	26,0	45,0	29,0

The share of household credit rose in this period of over two decades by 16,2 percentage points, and the share of other sectors by 27,7 percentage points, all at the expense of the corporate sector. This trend may be explained by the risk aversion of the banking sector since limited liability of companies increases the risk of default and motivates banks to turn to less risky, unlimited liability households and the public sector. Consequences of such profit-seeking short-term banking sector strategies can be observed in the following data on over-indebted individuals in Croatia.

Table 2: Personal over-indebtedness – individuals with frozen accounts (Financial Agency, 2018b, 2017b, 2016b, 2015b, 2014a and authors' calculations)

Year	Number of individuals	Share in population	Share in working – age population
Jan			
2012	211.234	4,9	7,4
2012	245.441	5,7	8,5
2013	299.795	7,0	10,4
2014	322.498	7,5	11,2
2015	321.580	7,5	11,2
2016	327.176	7,6	11,4
2017	319.752	7,5	11,1

The statistics of frozen accounts of individuals has been followed since January 2012 when public institutions detected a large-scale societal problem. The first information on individuals' frozen accounts show already more than 200 thousand of such personal over-indebtedness cases which then affected almost 5% of total Croatian population and more than 7% of working-age population. Six years later, at the end of 2017 the number of frozen accounts rose by more than 50%, now affecting 2,53 percentage points more of total population and 3,78 percentage points more of working-age population. Every fifth household in Croatia is affected by a frozen account.¹ The following table presents additional data in line with the argument of a strong link between financial sector activities and steeply rising debt of over-indebted persons.

Table following on the next page

¹ According to 2011 Census, there are 1.519.038 households in Croatia (Croatian Bureau of Statistics, 2016)

*Table 3: Personal over-indebtedness - frozen accounts debt indicators
(Financial Agency, 2018a, 2017a, 2016a, 2015a, 2014b)*

Year	Total debt (bn HRK)	Share of debt to financial institutions	Share of debt to banks	Share of small debt*	Share of medium debt**	Share of large debt***
Jan 2012	13,2	n.a.	n.a.	n.a.	n.a.	n.a.
2012	17,7	n.a.	n.a.	n.a.	n.a.	n.a.
2013	23,8	62,9	54,1	48,7	40,1	10,6
2014	31,1	65,0	56,8	43,2	43,6	13,2
2015	36,5	62,3	54,5	39,4	45,3	15,3
2016	41,2	57,5	50,1	36,0	46,8	17,3
2017	42,8	51,2	44,1	33,0	47,7	19,2

* HRK 2.000 \geq HRK 10.000

** HRK 10.001 \geq HRK 100.000

*** < HRK 100.000

The process described above is additionally worsened by the fact that the size of the debt of over-indebted persons rose with even higher intensity (more than threefold) than the number of over-indebted persons. The main reason for such a difference in pace are heavy compound and penalty interest loads that worsen the situation of every indebted person every day. The personal bankruptcy framework is very weak (e.g. only two personal bankruptcy officers in Croatia), so there are no effective state mechanisms to mitigate the personal over-indebtedness problem. Debt structure, according to the type of creditor and its dynamics, reveals two important points. Firstly, the financial sector, predominantly banks, are, without any doubt, the single, most important, most influential creditor of over-indebted households. This very much justifies the focus of this research on bank activities as potentially the most powerful remedy area for the problem of over-indebtedness. Secondly, trends in the past five years indicate the emergence of the whole new “over-indebtedness industry”, often labeled in the media as “over-indebtedness sharks”. Namely, the data (Financial Agency, 2018a, 2017a, 2016a, 2015a, 2014b) show that creditors labeled as “others” had their share in debt raised from 22% (2013) to 32% (2017). Interestingly enough the agency that produces data is one of those “other” creditors, and keeps such a large portion of debt nontransparent. These various “other costs” are rising even faster than interests. This explains why the share of “other” creditors is rising on the account of banks’ share. Debt structure according to the size of debt has been changing, too. Over the five-year period one can observe that it is obviously easier to manage small-scale debt (its share is falling) and that large-scale debt, without an efficient personal bankruptcy procedure, will just keep soaring. The size of the macroeconomic impact of these trends in Croatia is visible in the following table:

Table following on the next page

*Table 4: Indebtedness and over-indebtedness related to GDP
(Croatian Bureau of Statistics, 2017, Financial Agency, 2018a, 2017a, 2016a, 2015a, 2014b,
Croatian National Bank 2018, authors' calculation)*

Year	GDP (bn HRK)	Household credit share in GDP	Frozen accounts debt share in GDP
2011	333,3	37,5	4,0*
2012	330,9	37,0	5,3
2013	331,4	35,7	7,2
2014	331,3	35,3	9,4
2015	339,0	34,1	10,8
2016	348,7	31,1	11,8
2017	358,4**	31,3	11,9

** January 2012 frozen accounts data related to 2011 GDP*

*** calculated based on Croatian Bureau of Statistics (2018) estimate of 2017 GDP growth rate*

The share of household credit in GDP has stabilized due to the effect of recession; nevertheless it is almost at the level of one third of the GDP value. Compared to other countries this share is more than 10 percentage points higher than the upper range of emerging economies (15-21%, IMF, 2017). It is lower than household debt level in advanced economies (52-63%, IMF, 2017) mainly because of the public health and education system. Still, this level of overall household debt poses a serious macroeconomic stability risk. Namely, recent studies (Alter, Xiaochen Feng, Valckx, 2018, Mian, Sufi, Verner, 2017, Jordà, Schularick, Taylor, 2016) confirmed increases in household debt are associated with lower GDP growth, higher unemployment, and greater probability of future banking crises. Even worse indicators are associated with over-indebtedness (measured with frozen accounts debt), its level rose between 2011 and 2017 three-fold as the share of GDP. These data indicate that regulators should both try to solve existing debt in the short-term, but long-term focus should be on re-inventing the regulatory framework to tackle the source – generator of the problem which is embedded in financial industry operations. There are many questionable lending practices that have been detected so far to support the soar of household indebtedness (Filipović, Škalamera-Alilović, Štambuk, 2016), but the focus of this paper is directed towards the first one (first in the time-line of credit generation) – getting attention of the households by means of massive advertising. It has been proven (Škalamera-Alilović, Dimitrić, 2017) that the applied advertising tools are largely nonaligned with both European and Croatian regulation and can be labeled as irresponsible lending practice. This research aims at proving that such predatory advertising is closely related to the levels of household debt. This line of reasoning leads us to the main hypothesis of this paper: Based on the variations of the advertising expenditures of the banking sector in the past better predictions of the future levels of overall household debt can be made (banking sector advertising expenditures Granger cause household credit).

4. DATA AND METHODOLOGY

The originality of the approach applied in this paper mainly stems from the data on advertising expenditures of the banking sector which is in Croatia not collected by public bodies, but a private agency that takes part in this research. Banks withhold data on their advertising expenditures as a business secret and there is therefore no previous research that used this kind of data for establishing relationship between the size of banking sector advertising operations and expansion of household credit in the national economy. For the purposes of this paper, data from Media net, a private market research agency have been used. Since 1998 they have been tracking commercial advertisements on national TV channels and from print media according

to the selected representative list. Small ads and biddings are excluded from the tracking. The radio ads, the Internet and outdoor advertising are monitored case by case, which does not have a decisive impact on the overall picture, because banks in Croatia are still primarily oriented to classic media, especially television and print. Since 2002, ads have been added to an Access database, which was developed and improved over time. In 2006, in cooperation with the sister company Presscut, Keito zoner application was developed for labeling and selection of press content. The press content is manually classified as ads, biddings or classic articles. The program, which already has a predefined meta media and release data, then automatically sends the selected content for further processing. Analysts then enter the ad information into the Access database: large proportion of data is automatically transferred by database-associated software, and for some data there is a semi-automatic solution - the program recognizes the same or similar ads and offers information the analyst needs to confirm or dismiss. The criteria for the selection of print media are: the reach (data on the number of media consumers resulting from field research), the frequency of delivery (all daily newspapers are on the watch list) and relevance with respect to the number of published ads. The number of tracked print media varies depending on the termination or launch of new titles. The number of the followed print titles varies greatly, e.g. during 2017 the ads were followed in 77 print titles, during 2006 in 111, during 2007 in 110, and the largest number of print media followed was 127 titles in 2008. After that, the number of tracking titles has been declining due to the general recession and worsened position of the print media publishers. Since 2008 a software solution has been developed for the definition and selection of television ads. This program automatically reviews and recognizes TV ads, indicating the time (start, end and duration of the advertisement), TV channel and the show within or before which the ad has aired. Analysts are reviewing individual slot ads to see new ads appear and enter into the database all the relevant parameters, such as media, date, advertising duration, and product information. Once the ad is registered and stored, the program automatically recognizes it every time it appears in the TV program, and data on it is stored in the database. The analyst checks and controls the accuracy of the entry. Ads in the database are, for searching purposes, hierarchically organized in classes (there are 46), types, groups and subgroups of products, and products and their descriptions. Pricelists for both types of media are entered into the database after the first announcement, and regularly at the beginning of each year, and the program calculates the value of each ad depending on its position and size. Advertising expenses are therefore calculated exclusively on the basis of official, publicly published pricelists. This is an unbiased measure of banking sector advertising efforts as an independent variable in this research, since it does not include individual specific terms that a media provider negotiates with each bank. Therefore, the effect of monopolistic first-degree price discrimination (which is regularly exploited in the media industry through the so-called “discounts”) is neutralized. Data on all bank ads for the period 2003-2017 are entered into the database and used in this paper. Regardless of the evolution of the tracking method and data storage method there is consistency in selection, definition, coverage, and recording of ads. This enables the use of temporally comparable data as input for further time-series analysis. The dependent variable being the aggregate amount of household credit in Croatia is provided by the statistics of the Croatian National Bank (2018). Quarterly data for both variables are used, which resulted in 60 observations in total, from Q1 2003 to Q4 2017. Data on advertising expenditures showed extensive seasonal variation and are seasonally adjusted in this research. Statistical procedures are performed in the Stata statistical software package.

5. RESULTS, DISCUSSION AND FUTURE RESEARCH

In the following section, raw data on both variables are presented: the independent variable – advertising yearly expenditures of the Croatian banking sector and the dependent variable – level of household credit, at the end of each year, during the 15-year period, from 2003 to 2017.

Table 5: Banking sector advertising expenditures and household credit in Croatia (in million HRK) (Media net, 2018 and Croatian National Bank, 2018)

	2003	2004	2005	2006	2007	2008	2009	2010
Advertising expenditures	91	104	158	256	299	328	231	292
Household credit	52.587	62.652	75.713	92.682	109.545	122.734	117.886	124.389
	2011	2012	2013	2014	2015	2016	2017	
Advertising expenditures	386	312	286	243	263	310	416	
Household credit	124.852	122.504	118.320	116.889	115.675	108.574	112.203	

The data show significant rise in both variables. The advertising expenditures more than quadrupled over the observed period indicating extreme devotion of the financial industry to the persuasive, psychological impact of such tools on consumers. Credit levels more than doubled, but due to the economic cycle effect, stabilized in the last ten years. The mentioned variations of both variables will be further examined in order to test the possible predictive causality (Granger causality) between them. In order to do so, 60 pairs of quarterly data on both variables (seasonally adjusted) were used. The theoretical logic of the sequence of events is that there is a time lag between the moment of exposure to the advertising content and the moment of signing credit contract. The average time frame is usually around six months, depending on the size of the credit and the complexity of the pre-contract phase of credit issuance (collateral and miscellaneous documentation generation, risk assessment procedure etc.). Various optimal lag period selection tests (FPE, AIC, HQIC and SBIC) are performed. The results are presented in following table:

Table 6: Optimal lag period selection (Authors' calculations)

Selection-order criteria								Number of obs. = 56
Sample: 2004q1 – 2017q4								
lag	LL	LR	Df	p	FPE	AIC	HQIC	SBIC
0	18.6307				.001893	-.593955	-.565911	-.521621
1	215.325	393.39	4	0.000	1.9e-06	-7.47589	-7.39176	-7.25889
2	238.912	47.174	4	0.000	9.7e-07	-8.17543	-8.03521	-7.81376*
3	245.658	13.491	4	0.009	8.8e-07	-8.27348	-8.07718*	-7.76715
4	250.429	9.5429*	4	0.049	8.6e-07*	-8.30104*	-8.04864	-7.65003

The result of the most rigorous method (Bahovec, Erjavec, 2009, p. 296) – Schwarz-Bayesian information criterion (SBIC) confirms appropriateness of the application of the two-quarter (six months) lag period on the variable “household credit”. The Granger causality test is performed on ln-transformed variables: $x = \ln(\text{advertising expenditures})$ and $y = \ln(\text{household credit})$. The purpose of this test is to establish whether in the forecasting of the household credit variable the historical variations of banking sector advertising data provide statistically significant information about future values of household credit. The null-hypothesis states that advertising expenditures do not Granger cause household credit. When examining the opposite direction of Granger causality null-hypothesis states that household credit does not Granger cause advertising expenditures. Results are provided in the following table:

Table 7: Results of Granger causality tests (Authors' calculations)

Granger causality Wald tests				
Equation	Excluded	chi2	df	Prob>chi2
y	X	15.049	1	0.000
x	Y	.10371	1	0.747

In line with the previous hypothesis development, the first null-hypothesis is rejected, and the second is confirmed. Advertising expenditures are proven to be the predictor of future values of the household credit. In other words, it is fair to say that the level of household credit in Croatia can be better forecasted if predictions were based on the past values of advertising expenditures of the Croatian banking sector, and not only on its own past values. These results speak in favor of directing the research interest towards a specific banking sector operation (advertising) as a generator of undesirable levels of household debt. It is also considered useful to use these results as a scientific foundation of future new regulation efforts which should aim at suppressing the growth of household debt. The results indicate that any kind of more stringent regulation of banking sector advertising activities would have a favorable effect on controlling the level of household indebtedness and indirectly also over-indebtedness. It is expected that the absolute ban of financial services advertising would have the strongest impact in that sense. The recommendation for further research would be in modelling a stronger relationship between the studied by the analysis and testing the hypothesis on panel data on the level of particular banks, and not only the aggregate data for the entire banking sector. There are multiple limitations of this research which include: only Croatian national economy is covered, the banking sector consists of a small number of units (banks), Croatian banking sector is highly concentrated, the structure of banking sector underwent multiple changes in the period in question (mergers, acquisitions, bankruptcies, new entries). Further research would benefit from the comparison of banking sectors of multiple countries, if data for a longer period would be available, and if other banking operation procedures would be operationalized as variables (such as risk assessment procedures, setting of credit limits and similar, potentially irresponsible lending practices that may boost household indebtedness and over-indebtedness).

6. CONCLUSION

Credit policy and orientation of the banking sector towards households and the problem of personal indebtedness are very closely related. Credit market in Croatia shows that the share of household credit in the structure of loan allocation is growing rapidly as well as individuals with frozen accounts and their share in total and working-age population. The size of the debt of over-indebted persons has grown with even higher intensity than the number of indebted persons. The process is obviously accompanied by the fact that the share of large and medium debt has also risen. The macroeconomic impact of these trends in Croatia is disastrous, because the household credit share in GDP is almost one third, and the frozen accounts debt share in GDP has grown to almost 12%. These data and evidence about similar processes in other countries lead us to the necessity of linking the problem of personal indebtedness and banking practices. Previous research deals to a great extent with ethical problems in performing contemporary banking operations in light of constant growth of the personal indebtedness problem. Discrepancy between regulation and its successful implementation places focus on the problem of irresponsible lending, especially advertising as the main marketing tool prior to the lending transaction. The research presented in this paper proves the main hypothesis: that better predictions of the future levels of overall household debt can be made based on historical variations of advertising expenditures of the Croatian banking sector. Aggregate advertising expenditures time series have proven to be a good predictor of future values of the household credit.

Predictive causality is a strong argument for further research and policy adjustments directed towards solving of the huge societal and economic problem of personal over-indebtedness.

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STRATEGIC ASPECTS OF THE HUMAN CAPITAL MANAGEMENT IN THE DEVELOPMENT OF ORGANIZATIONAL CULTURE

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ABSTRACT

Organizational culture is a set of values, beliefs and all the visible elements of the organization that separate one organization from one another. The way of organizing the organizational culture begins before the "birth" of organization, because people who conceive a particular organization are those who represent the most important elements of the emergence of organizational culture according to the activities, the choice of people, product or service and other tangible and intangible elements of the organization. Organizational culture is often perceived as an examination of the organization's awareness that values, norms, behavioural characteristics, customs and products are those that represent the organization in an essential way. Looking at the set of elements, they are largely made up by employees. Employee with his values, his valour orientation, behavioural characteristics and habits is the key core of each organization. On the one hand, we want to highlight the role of human capital management, particularly human resource management as a strategic body of the organization, on the other hand, to define the importance of human capital management for the development of a "true" organizational culture.

Keywords: *human capital management, human resource management, organizational culture, awareness*

1. INTRODUCTION

People enter the organization in order to satisfy their own interests and needs, and those that define the first level of elements of organizational culture - values, cultural patterns, behavioural attitudes, etc. The strategic aspect of human resource management is essentially a departure from the traditional administrative function, when human resource management at the strategic level successfully "competes" with other business functions in organizations. The problem occurs when the organization or individual business functions still do not recognize human resource management as a direct factor in the organization's strategy and ultimately does not enter as part of a competitive strategy. The fact is that the creation of the environment of the organization presupposes, among other things, a well-developed human resources management field that can develop the strategic directions of the field of human capital management in a way of a mutual relationship with other strategic functions of the organization and thus potentially contributes to the organization's sustainable orientation. The demarcation of concepts of strategy, human capital management and organizational culture implies indications of a sustainable competitive advantage of organizations that will coordinate human resource management with the strategy and efficiency of human capital management for the purposes of the organization's strategy.

The strategic resources and other resources of the organization shape the history of the organization and, ultimately, the history of mankind. In the event that we are witnessing the utilization of resources for achieving the goals, it is necessary to coordinate human resource management activities to support the resources and human capital indeed that will represent a permanent strategic position and the potential of a competitive advantage. The majority of human capital bases on the connection with the organization's strategy and through human resources management, a symbiosis between strategy, strategic resources and human resource management is established. The idea of the paper is to capture all the perspectives on the field of human resource management of today. To this end, the structure of the contribution will be directed to an organizational culture, on which we will justify one of the positions of human resource management, which directly places it among the strategically important functions of the organization. The organizational culture, based on its definition, has a visible impact on the various aspects of the organization's activities, including its strategic orientation. Organizational culture links the elements of organization definition and identifies with the development of an organization's strategy. Culture plays a special role in shaping the organization. It is also one of the strongest forces of the organization and consequently also influences the behaviour and performance of its employees, as it forms the level of values and other elements of the organizational culture. Thus, it can be understood as a strategic source for each organization and also placed in a correlation with human resources management. The relationship between human resource management and organizational culture is not unambiguous, nor one-way. The purpose of human capital and human resource management is to influence the organizational culture, and also the influence of the organizational culture on the development of human resources management is a characteristic consequence of the functioning of culture. With the help of human resource management further, the organizational culture manifests itself through a pattern of values and other elements, and as such is increasingly integrated aspect. The fact is that linking the culture with human resource management is coordinated at the level of symbiosis, while at the same time it places human resource management on a plateau of strategically important functions in the organization. This role is considered as a coordination of the relationships between employees and the importance of the organization's overall performance in samples that usually contribute to achieving or exceeding the objectives. Through culture, the competitive strategy of the organization is also transmitted. Before continuing with the presentation of both components - organizational culture and strategic human resources management, we point out the importance of linking three pillars - human resources management, strategy and organizational culture that lead to the realization of the strategy. The consistency of all three pillars means that they are in the same timeframe and that the goal is to achieve a common goal. The importance of cohesion is in stability, well-defined competitive strategy and focus on all the important components of human resource management of today's time. Researching the relationship between human resource management and organizational culture and the premise on the functioning of the strategy is one of the starting points that will be opened by this contribution. Assistance and the role of human resource management in achieving the organization's results points to an extremely important role of strategic importance. This only presupposes one of the basic boards for the operation of the human resources management field in the future.

2. STRATEGIC ROLE OF HUMAN CAPITAL MANAGEMENT

The emphasis on the interests of the organization's life is in the true way of organizing organizations, the development of digitalization and robotization, good interactions, improvements at all possible levels of organization and, of course, the care for healthy development and the progress of employees, through social, human and intellectual processes and, last but not least, focuses on the field of human resources management.

As has been said, human resource management from the times when it operated in organizations merely as a bureaucratic extension of strategically important business functions, has become an important field of activity for the purpose of a constructive and development-oriented field. However, if we want to put the development of such a concept of human resources management at the appropriate point of the placement, the importance of successful and efficient functioning of organizations in today's digital age should also be emphasized. Human resource management must represent the organization a support point to the strategy and together with other important functions to create a positive outcome of the organization. The first starting point for human resource management to integrate into the business strategy of the organization is the management's awareness that personnel processes are not a starting point but an added value for all, the internal and external environment of organizations. Namely, in strategic management and setting strategic direction of employees, employees represent the most important component. The key role of strategic human resources management is to direct managers to better manage their employees. By doing so, managers are provided with appropriate tools to set up processes that will be geared towards achieving business results. Therefore, the human resources system is not an objective, but a means to better manage people. Moreover, the strategic role of human resource function is of vital importance, since the personnel needs to act proactively, primarily to be the bearers of the change, and not only the operators of operational administrative personnel processes. A long-term successful company is one that builds its success on the interweaving of the business and human factor and integrates good and integrated human resource practices into all vital parts of the company (Fesel Kamenik & Petrič, 2011). To define the strategic function of human resources management, we provide a four-sided demarcation of the field, which includes all the more important strands of understanding the field. The strategic function of human resource management addresses the field in which people's management is key and strives for the success of the organization. It represents the level of thinking and activities that link the field of human resources management with the strategic mission of the organization. If we relativize the concept of human management, the main distinction between human resource management and the strategic function of human resource management is linked, on the one hand, to the understanding of the treatment of human resources management at a horizontal level, whereas the strategic function connects human resource activities to the vertical level, thus ensuring that it is included in the strategic orientation of organizations (Banfield and Kay, 2008). We continue with the employees in the organization. The organization is primarily composed of tangible and intangible resources and capabilities that allow it a competitive advantage and successful business. In organizational resources, we find resources, processes, competences, information. In the field of strategic understanding of human resources management, this means that they are a key source of the successful organization of employees' competences, which are the main generator and bearer of changes in the organization (Banfield and Kay, 2008). Strategic decisions are the third item. We want to expose them to critical decision-making in important areas of employee management, such as rewarding, development, recruitment, selection and other management elements. It is also understood as a decision and process function that defines the mission and vision of the organization and management of employees in all strategically important pillars of the organization (Banfield and Kay, 2008). The fourth element is related to the development and the entire range of activities of employees, mediation, policies and practices, and the integration of activities with the effect of added value of employees. The added value of employees needs to be measured and can be used (Banfield and Kay, 2008). From linking to understanding knowledge as a vehicle for the development of all organizations and, last but not least, society, we are all subject to the challenging conditions of the business world. The model of human resources management, which has grown beyond normal operating frameworks at horizontal levels of organizations, to understanding its role in vertical

connectivity, is becoming an inevitable part of the management of organizations. In development tendencies, management deals with organizational culture, communication, employee career, development and, above all, knowledge. The power of human resource management is in the knowledge of the entire competence framework of the employees, and it has to be focused on mediation and integration with all other strategic functions.

3. ORGANIZATIONAL CULTURE

Organizational culture is defined as a "common values system (which defines what is important) and norms that define an appropriate attitude and behaviour for employees in the organization (how to feel and behave)" (O'Reilly and Chatman, 1996). Organizations of values and norms regulate the dual processes of external adaptation and internal integration and indicate the functioning of the organization (Schein, 1985). The complexity and dynamism of the global environment fosters external adaptation and internal negotiation of goals that are less manageable for human resource management. Organizational culture encompasses a comprehensive system of norms, values, performances, beliefs and relationships of employees in the organization, which determine the way of behaviour and responses to the problems of all employees, and thus shapes the appearance of the company. Values are those that show what is important to the organization, what is worth the effort, and the norms determine the expected behaviour or the organization's behaviour in a given situation. The organization chooses symbols, slogans and rituals expressed in their values, and culture is the one that dictates to the individual what is important in the organization, how to behave, and how to perceive things (Harris and Hartman 2002 in Vindiš, 2011). Treven and Srića (2001, 168) consider that organizational culture is mainly characterized by the following characteristics:

- individual's independence, level of responsibility, independence and exploitation of the opportunities offered to the individual in the organization,
- organization, level of direct control and control of behaviour in accordance with rules and regulations, - support, level of assistance of managers to their subordinates,
- identity, the degree to which members of the organization identify with the organization as a whole, and not only with their group or with the area on which they operate,
- rewarding performance is the degree to which rewards are based on the work performance of employees,
- tolerance of conflicts is the degree to which employees are encouraged to openly express their own opinions and the opportunity for employees to enter into conflicts without fear, - tolerance of risk, is the degree to which employees are encouraged to be aggressive, innovative and accept the risk,
- attitude to change, response to new methods, ways and values; - guidance; is the degree of definition of clear, transparent goals and expectations for successful achievement of goals; - standards and values, behaviour levels that are reasonably acceptable for formal and informal criteria,
- rituals customs, stories and events that strengthen the standards and values of the organization, - care for people (employees), the degree that is reflected in the organization's concern for its employees,
- the openness of communication and the view, are the levels to which the organizational communications are limited and linked to the formal hierarchical line of authority. The stream of messages in the organization can take place down and up, depending on the culture,
- market orientation and customer orientation, the degree to which an organization responds to its markets and customers,
- enthusiasm and pride, a good sense of organization and its activities, - commitment, willingness of individuals to pursue goals,

- teamwork, the work of people in the group for the benefit of the organization.

Therefore, if we connect the organizational culture with the basic building blocks, the basic fact is the connection with the employees, which presuppose the implementation of all the mentioned components. On the basis of the functioning and development of the organizational culture of tore, we are building on an organizational culture only on the basis of the acquisition of personnel management on a strategically important function. Better to say, if we want to analyse organizational culture from its initial life cycle, we need to ask ourselves how the organization will set up human resources management in the direction of handling employees. The development of employees and the development of values and other components of the organizational culture is meaningful when it is sensible to place the functioning of human resources management in the adoption of strategic goals, and if we go back to determining the organization of culture. The positive correlation between organizational culture and its impact on the organization's strategy, and on the other hand, the correlation between organizational culture and human resources management implies a clear relationship between strategy and human resources management. Better to say, the feedback loop during the operation of the strategy and employees through the human resources management body makes sense as a meaningful relationship between organizational culture and the strategic orientation of the organization. In this way, we can study the organization as an inevitable transition of the human resources management system to a more demanding level, as demonstrated by today's time. A study that would link all three components - strategic level, human resource management and organizational culture - would also form a model of operation and a clear link between the three pillars.

4. SYMBIOSIS OF HUMAN CAPITAL MANAGEMENT AND ORGANIZATIONAL CULTURE

The strategic operation of human resources management arises from the importance of the role that the organization attaches to the functioning of the said function. The fact is that through the integration of activities, which includes the basic predispositions of the overall management of employees with organization and organization with employees, the important role and direction of management of the organization is also determined through the prism of human resources management. Organizational culture is part of the management, because to a large extent the value system connects the whole organization with each other. Likewise, a large part of the strategy can be related to the behaviour of culture as a means of achieving strategic goals and setting up the operation of the management, which, through the leverage of organizational culture and with the help of the personnel management mechanism, affects employees in the direction of achieving the goals. Due to the different patterns of organizational culture, which ultimately delineate organizations among themselves, questions of delimitation of management are respected, which respects the function of human resources management, respecting the employees, their knowledge and abilities, and creating a healthy environment of the organization also in the way that leaves the management personnel through the culture strategic leverage operation. Similarly, the way to achieving goals is often easier when culture connects and does not delineate employees with each other. If we therefore understand culture as a contribution to a larger and more rich organization of the organization, the function of human resource management, correlating with direct linking to employees, can be understood as an important strategic orientation and justification for the symbiosis of the situation. The purpose of studying organizational culture is to adapt employees to the organization's strategy. Furthermore, we conclude that the employees through the most powerful tool, which is organized, supervised, evaluated ... the work of employees - human resources management is classified as important elements that coincide with the strategic tool of the organization.

The purpose of the stimulus is to focus on the technical side of culture and the culture of employee relations. Cultural factors are mission and philosophy (articulation of the mission and evaluation of the focus on customers, stakeholders, structure (influence, empowerment and integration), systems (selection and selection of personnel, training and development, respect for the individual, performance evaluation and rewarding and setting goals) and skills and competences and quality (communication, management, source and distribution of power) (Dialogos, 2018). The results of the organizational culture are measured at three levels; at the level of the individual (clarity of the role, motivation, satisfaction, the intention to stay in the organization, the role of conflict, job insecurity, workplace stress), team level (team work within the department, coordination between different organizational units and quality of work at department level; units) and at the level of the entire organization (the quality of work at the level of the organization and the ability to adapt to the demands of the market (Dialogos, 2018). Such a systemic approach is interesting for our contribution, especially due to the importance of human resources management through the prism of organizational culture into the strategic level of the organization. Typical elements that point to the vision of the strategy in conjunction with the organizational culture are in: Literature represents the relationship between human resource management and organizational culture as a two-way. The mission of human resource management is to influence the organizational culture (McAfee, Glassman and Honeycutt, 2002; Ferris et al., 1998). This perspective is strengthened by confirming that Human resource management communicates through organizational values and is, as such, the most widespread manifestation of organizational culture (Ferris et al., 1998). McAfee, Glassman and Honeycutt (2002) specifically refer to the relationship between culture and staff management as a symbiosis. Interestingly, the need for cultural coherence in strategic human resource management is only implicit and usually limited to the concept of settlement or consistency (Delery, 1998; Lundy, 1994). To describe strategic human resource management through organizational culture, we will use a framework of competitive values within the four quadrants. These quadrants are determined by individual organizational types and are useful in classifying the organizational culture. The quadrants consist of: human relations, open systems, a rational goal, and internal process models (Brown and Dodd, 1998). Using this framework, it is possible to explain the potential impact of strategic human resource management along with organizational culture. The culture of the organization can lead to the internal development of competences and in some way take over as a competitive strategy of the organization. The orientation of human resources management in such an organization can be used as a strategic value by integrating it into an organizational strategy (Dutch, 2013).

5. IMPLICATIONS OF ORGANIZATIONAL CULTURE AND CONCLUSION

The paper presents typical indicators of the development of personnel discipline in organizations in the future. It is not so far to look back on the building of personnel services in basic and administrative tasks that do not go far to manage and organize work through the prism of bureaucratic institutes. If we want to have a healthy organization and a healthy organizational culture with the right values, norms and other elements, we will be able to hope to integrate human resources management into the level of strategic decision making for the organization. At the time when it becomes clear to us that this activity goes beyond mere bureaucratic tasks but very clearly implies on the behaviour and achievements and development of employees, and through this to the development of the true values and orientations of the functioning of the organizational culture, we will move into the domain of managing the organization as a fundamental long-term partner in the environment of its operation. The attachment of past relationships, when it comes to the strategic level, merely financial and material factors of business, passes to the level of importance of the development of culture in the same sequence as the development of the discipline of human resources management.

The employees were, are and will be one of the most important competitive advantages of the organizations of today's and future times. As such, key factors can be only if, through values and other mechanisms of organizational culture, they can become involved in "their own discipline" as the discipline of organizational development. Therefore, the rule of future development is in the interweaving of the strategic orientation of HR management, which, together with other business functions of the organization, will co-create and not only administratively support the achievement and exceeding of the goals of the organization.

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HOW DO ACADEMICS AND INSTITUTIONALS PERCEIVE THE MECHANISMS OF CAREER ADVANCEMENT?

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ABSTRACT

This paper proposes the results of an exploratory study relating to the career of the teacher-researcher in Morocco. We directed this research towards the study of perceived academics with respect to the mechanisms put into force to advance in their career in particular, the procedure of evaluation used in this respect.

Keywords: *Career, Mechanisms of advance, Teacher-researchers, Moroccan University*

1. INTRODUCTION

Since the Dahir (Law) of 5 August 1959 organizing higher Education, the Moroccan university landscape has continued to evolve as a result of successive reforms. The new statutory and regulatory provisions governing the recruitment and advancement of Moroccan academics impose new career management processes on academic institutions, and new academics Ways of thinking about their career paths. Our study is part of this framework and aims to understand the perceptions conveyed by the current academic advancement provisions and the evaluation process they embody. More specifically, we will try to answer the following questions: How do Moroccan academics currently perceive their trade? What about their feelings towards the assessment and advancement process? What is the meaning of institutional actors in these new provisions? In order to do so, comprehensive interviews (Kaufman, 2016) were carried out with eighteen teacher-researchers in the three categories provided for by the Statute and belonging to various disciplines (social sciences and Exact sciences), and six Institutional actors involved in the administrative management of careers, members of evaluation commissions, and a trade unionist. The sample size remains very satisfactory with regard to the principle of theoretical saturation, a principle reached gradually through a permanent round-trip between data collection and analysis. Before discussing the results, we present the theoretical framework and the context of the university career in Morocco, followed by a presentation of the methodology adopted.

2. THEORETICAL FRAMEWORK

After an attentive reading of the principal theoretical debates dedicated to the management of the career, we propose to present three theoretical approaches:

- Sociological approach of the career;
- Psychological approach of the career;
- And cognitive approach of the career.

2.1. Sociological approach to the career

Sociologists of Interactionist inspiration (American current of thought represented by E. Hughes, E. Goffman, H. S. Becker, A. Strauss) were very interested in careers. Hughes defines the career as a "journey followed by a person during his life, and more precisely during the period of his life during which she works" (Hughes, 1996, p. 175).

For the author "Everyone has a career" and "There are many life-scale careers, which are neither organized nor consciously defined" (Hughes, 1996, pp. 176). The diachronic analysis of the career, conceived as sequences, focuses on how actors perceive their failures or successes, anticipate developments, prepare for change. Thus, to the objective dimension of the career, regarded as the status attributed to the individual officially, is added a subjective dimension of the career, understood as an evolving perspective in which the individual sees his life and The interpreter. The transitions between these sequences are the subject of a founding text by Hughes (Hughes, 1950, 1996) on the "turning points". Studies have focused on the more or less institutionalized nature of these transitions and the perceptions of the actors in the context. Thus, on the occasion of his doctoral research on the career of teachers in Chicago public schools, H. S. Becker (1952) does not fail to underline the key role of the student's image, capable of succeeding or having difficulties more or less Insurmountable, on the perceptions these teachers make about their profession, including the structuring of the three dimensions of their role, namely the transmission of knowledge, the maintenance of discipline and the "moral acceptability" of students.

2.2. Psychological approach of the career

We propose to exhibit below the Schein model career anchors (1978) because of academic scope. This model focuses on the concept of self or career anchor, which the person develops in his relation to the working life. The anchor thus built has three elements: talents and abilities, values, motivation and needs. According to recent studies, people can move from one dominant anchor to another during their working life and, above all, can present a hybrid profile composed of multiple anchors. The table below represents the adoption of the eight Schein career anchors.

Table 1: Adapted from Schein's career anchors (1995, 1996.2006)

Career anchor	Definitions
Managerial	Skills in management related activities
Technical	Motivation to work in a very specific field of function.
Security/stability	An organization that ensures long-term stability and sesutity at work.
Entrepreneurial spirit	The pleasure of creating new things.
Autonomy/Independence	Support the work constraints.
Challenge	Engaging in Challenge activities
Service/Dedication	Providing help and services to other people
Lifestyle	Balance between privacy and professional life

Source: Daly, 2010, P. 163

2.3. Cognitive approach of the career.

The theory of career scripts was developed by Barley (1989), based on the interactionist sociology of the Chicago School and on the theory of structuring Giddens. Barley (1989) Defines the career script as the set of interpretative schemes, resources and standards on which individuals build their careers. The scripts allow individuals to develop perceptions and behaviors appropriate to the situation in which they are located. Thus, the scripts have a dual dimension reflective and behavioral, they allow individuals to make sense of the situation in which they are and thus act accordingly. In their article published in 2006, Duberley, Cohen and Mallon are interested in the way scientists build the meaning of their careers. The authors then question 77 scientists belonging to the public sector and in various national and sectoral contexts.

The study reveals the existence of four different career scripts for these scientists: the organizational careerist script; the impassioned scientist script; the strategic opportunist script and the balance seeker. These scripts are the result of the dialectic between the Agency (the action of the Scientist and the interaction) and the structure. In this regard, the authors identify six institutions that are binding and empowering scientists in the construction of their careers and on which they can influence their careers: the organization, the science, the profession, the family, the government, the nation. At the agency level, the authors show that the actions of individuals can be of a proactive or reactive nature, and on the other hand have for guidance the maintenance or transformation of existing institutions. This study seems to be rich in teaching for the study of the career of the teacher-researchers. Three points appear to be particularly interesting:

- A plurality of institutions constrains and empowers scientists in the construction of their careers, and they do so in a multifaceted and variable way;
- The co-existence of different career scripts for the same profession. An individual scientist can rely on different scripts to build his career.
- A plurality of the modes of engagement of individuals according to a double dimension: reactive/proactive; Maintenance/transformation.

2.4. Mechanisms for the advancement of the teacher-researcher in Morocco

In order to understand the course of the "university" career in Morocco, we have contacted and interviewed institutional actors, in addition to a careful analysis of the regulatory texts dedicated to the professional advancement of the three categories

Tableau 1 : Institutional actors interviewed

Function of the interviewed	Length of maintenance	Number of pages
HR manager at a university	85 minutes	15
Member of the National office of the "Snesup" trade union	35 minutes	9
General secretary of a university institution	23 minutes	8
HR Manager of a university	34 minutes	8
Member of the Scientific Committee of a University institution	25 minutes	6
Member "professor of Higher Education" of the Joint Committee of a university	59 minutes	9
Total	261 minutes	55

Since February 1997, to advance in his career, the teacher-researcher of the Moroccan public university, like any employee, goes through predefined and regulated phases. The advancement of the teacher is done first within a grade, advancing one step every two years. The transition from one grade to another is personalized, it takes place according to various rhythms (see table 2).

Table following on the next page

Table 3: Rhythms and conditions of passage from grade to Grade

Rhythm	Conditions
Exceptional	20% of the numbers of candidates enrolled for advancement are promoted to a higher grade if they have 2 years of seniority in the 3rd step of the present grade.
Fast	20% of the number of candidates enrolled for advancement shall be promoted to a higher grade after one year of seniority in the 4th step of the grade concerned.
Normal	20% of the numbers of candidates enrolled for advancement are promoted to a higher grade either after 2 years or 3 years at the 4th step of the current rank.

Indeed, the Scientific Committee of the institution¹, composed of peers, evaluates the progress directory of the teacher concerned from grade to grade, using a pre-established grid². The ranking by the peers is made available to the Joint commission of the University³, in order to carry out a definitive classification at the university level, with regard to the quota rule⁴. Finally, the advancement of the category teacher, whether from the Assistant professor (A.P.) to the qualified professor (Q.P.) or from the QP category to that of the professor of Higher Education (P.H.E.), is organized according to the same Regulatory principles. So that the academic can move from one category to another, he must prepare and file a directory detailing his research activities and scientific publications, after having justified a minimum of years of exercise⁵. The candidates selected on the basis of a minimum of scientific production, are summoned to interview a jury of peers. A trade unionist did not fail to notice some delays in the launch of the clearances.

"Sometimes the empowerment is not organized, because it is according to the" goodwill "of the managers, there are faculties that have not opened the authorization it is more than 3 years, and the professors remain on hold" (Member of the National Bureau, Sensus)

3. METHODOLOGY, RESULTS & DISCUSSION

Our goal is to understand the mechanisms of advancement and their properties through the speeches of the academics themselves, and to empirically define their perceptions towards their career path. We then chose hybrid Exploration (Charrerie and Durieux, 2005), which consists of back and forth between observed facts and theoretical knowledge throughout our research.

3.1. Sample

On the basis of the statutory scheme organizing the "university" career in Morocco, the academics to be interviewed were chosen in relation to the criterion of professional status. The status of the teacher refers to the Professional category that he or she occupies at the time of the interview.

¹ Decree number Two. 01.2329 Of 22, 11423 (4 June 2002) establishing the composition and functioning of the Scientific Committee and the modalities for designating and electing its members.

² It is the councils of each institution that set the weights of the headings of the grade-to-grade advancement grid.

³ The Joint Commission consists of six members: Three university professors are elected and three others with administrative responsibilities are appointed by the president of the university.

⁴ Of the five teachers concerned with the advancement of rank, it is the first class that will be entitled to the passage according to the rule of 1/5.

⁵ Four years for PH and Six years for PES; See Decree No. 2.96.794 of 11 Chaoual 1417 (19 February 1997) laying down the conditions and modalities for the organization of University Empowerment; Decision of the Minister of ESRSF N ° 15.2645 of 29 Ramadan 1436. Decree No. 2.96.793 of 11 Chaoual 1417 (19 February 1997) concerning the special status of the teacher-researcher.

This criterion is essential, insofar as the perception of advancement in the career depends on the position occupied by the teacher. In addition to the status, we have ensured that the sample is as varied as possible; the interviewees belong to different disciplinary fields, men and women, etc. The use of this sampling reinforces the validity of our results, since it is based on the principle of successive replications: If a result is obtained in a context, and it is verified in another context different but comparable, it draws from the Robustness explanatory. The following table details the characteristics of our sample:

Table 4: Characteristic of the sample of teacher-researchers

Interviewees/Discipline/gender	Status/seniority in the trade	Length of maintenance	Number of pages
Medical science		147 min	41
Noura	PES/14yrs	37 min	13
Jalil	PA/3, 5yrs	64 min	17
Youssef	P. Aggregate/8yrs	46 Minutes	11
Exact Sciences and/or technical		256 min	63
Najia	PES/30yrs	50 min	11
Mariam	PA/6yrs	50 min	14
Med2	PES/20yrs	69 min	18
Ali	PH/11yrs	42 min	11
R	PES/26yrs	45 min	9
Economics and Management		164 min	57
Amine	PH/22yrs	55 min	16
Med1	PH/11yrs	43 min	15
Issam	PA/4yrs	36 min	14
Khalid	PES/22yrs	30 min	12
Legal science		130 min	30
Nora	PH/5yrs	55 min	16
Kamal	PA/10yrs	50 min	9
Salma	PES/19yrs	25 min	5
Human Sciences and literature		178 min	32
Souad	PES/27yrs	62 min	8
Asmae	PA/5yrs	61 min	12
Med 3	PH/6yrs	55 min	12
Total	18 interviewees	875 min	223

The size of our sample is satisfactory in relation to the principle of theoretical saturation (Thiétart, 2014). This principle implies that we stop interviewing the actors concerned from the moment when the last interview does not provide any new information relative to the previous one.

3.2. Data collection and analysis

We have privileged the life story as a method of data collection. It is a narrative maintenance technique in which the researcher asks the interrespondent, here the teacher-researcher, to tell him all or part of his experience in life (Bertaux, 1997). The narrative of life has allowed us on the one hand the free expression of opinions by academics, and on the other side to understand in depth their perceptions, attitudes and behaviours in matters of career. The interviews, with an average duration of 48 minutes, were conducted face-to-face, and carried out under the same situational conditions. The interviews performed in Arabic with professors who did not have a good level of French because of their speciality, were carefully translated by two translators. The translation discrepancies found were discussed by case-by-case. In some cases our intervention has made it possible to overcome certain blockages, by bringing in particular elements of context. The interviews were completely recorded and transcribed; the names of the academics were replaced by fictitious names to respect anonymity. Our corpus represents 278 pages. Analysis of corpus content has called for a gradual approach (Huberman and Miles, 2003). After a careful reading of the transcripts, we conducted successively the operations of codification, consolidation and categorization. Subsequently, we developed intra-category and inter-categories analysis grids (thematic matrix and contingency table) to compare the results obtained. Finally, a statistical analysis (frequency of themes and relationships) was conducted to identify the centrality of the themes, those with a relative force explanatory to the perceptions of academics on their career advancement.

3.3. Results & Discussion

The study of our corpus has made it possible to highlight, among the teachers interviewed, a strong sense of injustice towards the mechanisms of advancement in implementation, described as bureaucrats, rigid, and ambivalent. These attributes seem to be shared and by the administrative and the unionist.

3.3.1. *Perceptions of the advancement system as a whole*

For some teachers interviewed, the advancement system is unbalanced: "The main constraint is the status of teachers-researchers, unfortunately there are many imbalances, we feel limited by this status" (Amine, 52 years old, PH, management Sciences).

An administrative officer attached to the presidency of a university finds that the last reform of the education system (Law 00 01) is inadequate in the sense that the teacher advances quickly and remains stagnant for a long time. "The new reform had to be adequate with the laws that legitimize the teacher-researcher system. Currently the reform is especially the LMD system has put in place a change in age to move from one category to another. You can become a doctor at the age of 26 (i.e. 18 years plus 8 years old), after 4 years you will be a PH (30 years, it is PH) and you can become a PES in 36 years and saying 10 years it becomes thereafter a PES with grade C at the age of 46 Years. So from 46 years the teacher will be stuck in his career until 65 years" (Head of a university Presidency).

A member of the National Bureau (SENSUP) believes on his part that the status that structures the career of teacher-researchers is exceeded and unclear. "Our current status is exceeded, it's been about twenty years compared to other countries like Tunisia (...) We do not have a code, we have several texts, there is status and other things, the law is not clear" (Member of the National Bureau, Sensup).

Another head of a scientific commission for evaluating the advancement of the teacher-researcher sees that, the system of advancement introduced is traditional and does not contribute

to the scientific development of the professor. "It's more classic and too traditional and it doesn't really contribute to development, it doesn't have a big impact on scientific production" (Head of a scientific Committee).

Some academics even challenge the ranking of statutes, considered unjustified insofar as the status-effort ratio is not equitable. "We must limit this unjustified hierarchy. I'm a PA who works more than a PES" (Kamal, 37 years old, PA, legal sciences)

3.3.2. Perceptions of the evaluation system in particular

The peer-reviewed assessment, leading to proposals for grade and/or framework advancement, is perceived to be unfair by the academics interviewed: "There is a certain injustice in the procedure and matrix of evaluation of teacher-researchers" (Khalid, 52 years old, PES, management Sciences). The said assessment was found to be of quantitative scope more than qualitative, according to the head of a scientific commission: "I am convinced, it is much more a summary evaluation, an evaluation too quantitative than qualitative and it does not allow the promotion of the teacher" (responsible for a scientific Committee).

Some academics find it even difficult to measure the performance of the teacher-researcher because of the diversity of its missions: "It's difficult to measure the effectiveness or performance of a teacher-researcher, because there are several constraints and several factors, are you going to measure performance only at the level of pedagogical work?" Are those who are going to do the evaluation aware and capable?" (Amine, 52 years old, PH, management Sciences). This difficulty inherent in any evaluation operation generates dissatisfaction with the assessed: "Teachers are not happy with their ranking and it is not easy to classify teachers, to evaluate teachers by teachers, it creates difficult situations" (Head of Scientific Committee).

The use of arbitrations or adjustments on a case-by-case basis allows evaluators to decide on difficult cases, especially when teachers present the same level of performance: "It is true that in some cases, in the case of equality, it can be subjective but, generally there is a consensus, sometimes in conflict situations we try a little bit to seek between colleagues to let everyone at ease" responsible for a Scientific Committee ".

It is precisely in this type of situation that the evaluation is considered by some teachers at the origin of the conflicts between colleagues: "The evaluation system is done with the goal that teacher-researchers fight among themselves, and that breaks relationships and kills the career of the teacher-researcher" (Med2, 52 years old, PES, technical sciences).

University Professors question the evaluation procedure, as some of the colleagues pass through without merit: "There are teachers who deserve to pass and pass. Other than they deserve, they also pass but I know people who have to make the effort to get there and despite that they pass effortlessly "(Med1, 42 years old, PH, management Sciences).

3.3.3. Determinants of perceptions of evaluation

The perception of the assessment by the teacher-researcher is related to his or her disciplinary field. For example, a professor in management science points to the few dedicated scientific journals and the slowness of the publication process, and their impact on the peer-assigned score during career advancement: "In the field of management sciences (...), there is a magazine with only one number per year, either you had the chance to publish, or you wait for your turn, so the publication is a bit very slow"(Amine, 52 years old, PH, management Sciences).

Another academic in medical sciences says he suffers from an excessive workload in terms of care and supervision, not allowing him to devote himself, as he wishes, to teaching and scientific production: "It's difficult to ensure the activities of a doctor, I have a double cap, even triple, it will take a lot of my time compared to teaching and research" (Jalil, 36 years old, PA, medical Sciences).

The academics interviewed indicated that the assigned remuneration remains indifferent to performance, and does not allow the effort to be encouraged: "Progress is advancing and everyone knows how it goes, but in return our salary progressed in the same way as those who do nothing" (Mariam, 47 years old, PA, technical Sciences)

This position is also shared by a national Office member (SENSUP): "Given the multitasking that is done it takes the (evaluation) review, there are some who do not work, sincerely. There are those who do the teaching, the coaching, the research (the managers of modules, of streams, head of department, Faculty Council, Council of the University and the Scientific Commission), he does the whole and you give him the same salary as another Who does nothing. Some people do their classes and go to trade. This is not taken into account in the appraisal "(member of the National Bureau).

Financial governance was deemed "non-transparent" by the National office manager because, the budget dedicated to the university is not exploited to develop the skills of the teacher-researcher: "The governance of the University at the budget level, it takes transparency, because the state gives billions, we do not even know where these billions are spent, sometimes are exploited in travel for some people and things that are banal and not for Training that promotes the advancement of the teacher"(Member of the National Bureau (SENSUP))

Some scholars aware of the specific nature of the teacher-researcher's profession in terms of freedom and stability at work consider these specificities at the origin of the "opportunistic" behaviours deployed by some teachers: "The profession assures us stability and freedom at work, you have the axis and the subject but you also have the freedom in the way of transmitting..." (Asmaa, 44 years old, PA, literary sciences)

«Freedom and stability (...) do not designate when I am in the public service it allows me to do what I want, to stay in the same position when I want without evolving "(Med2, 52 years, PES, technical sciences).

3.3.4. Effects of perceptions of evaluation

The evaluation procedure implemented to advance the teacher-researcher leads to the demotivation of some professors: "A teacher who feels a little bit targeted by these unfair assessment decisions. This is really a source of general demotivation, which affects their professional career" (Responsible for a scientific Commission)

This demotivation leads the professor to seek his personal interest and/or sources of self-motivation outside the university: "The teacher begins to seek his personal interest, he will write personal books to sell them, he will also seek to ensure courses in private institutions and even he can become an expert. Basically, he seeks his personal interest and he will become demotivated "(Head of a university presidency). The evaluation system is also the cause of a loss of efficiency at work. The teacher-researcher ceases at some point in his career to enhance his "pedagogical" and/or "scientific" Works: "Because of this system of evaluation, the university professor stops giving added value even in teaching, he will not give anything in the field of teaching or scientific research" (Responsible for a joint commission).

Some scholars have stated that the absence of a student's appreciation of the teacher's training quality generates a counter-performance from the University: "If we do not evaluate the professors by the student, i.e. does this teacher give me useful things for my professional life or not? Does this teacher participate in training me, improving me or not? So for me I think as long as there is not this approach and well we will go towards an organizational disorder and a counter-performance"(Nora, 47 years old, PH, legal sciences)

Because of the system of advancement introduced, some academics intend to request their early retirement: "Now with this system malfunction, I say I would like to have early retirement" (Mariam, 47 years old, PA, technical Sciences)

4. CONCLUSION

Throughout this paper, our thinking has been based on the perceptions of teacher-researchers and institutional actors involved in the management of their advancement, whether as an administrator, or as an evaluator, or as a trade unionist on the current promotion mechanisms. The relevance of our analytical approach to the data collected and the diversity of the tools and techniques used in this regard have allowed us to identify several elements that cause negative perceptions for the most part. These perceptions generate demotivation and the loss of efficiency in the work of university professors. The limit of our work is related to the methodology chosen. The exploratory scoping study was conducted with 24 teacher-researchers and some institutional actors. It is in this sense that the results obtained cannot be generalized, and cannot represent the whole reality. We are planning in this regard and in the very near future to launch an extensive confiscatory study with a wider sample.

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GREEN GROWTH AND GROSS DOMESTIC PRODUCT (GDP): WHAT REPRESENTS THE NATURAL CAPITAL?

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ABSTRACT

These last years the green growth aroused an undeniable craze everywhere worldwide especially in an environment under pressure of double challenge: widen the economic possibilities for all with an expanding world population; deal with the environmental pressures. The green growth appears as an approach of the aiming development to promote the economic growth and the development while watching that the natural assets continue to supply the resources and the environmental services on which depends our well-being. To measure exactly the progress realized regarding transition towards a green growth, countries apply methods of calculation taking into account all the wealth and the value of the ecosystems, in a parallel to their conventional indicators such as the GDP. At the heart of the green growth, there is gratitude of the natural capital as factor of production and its role in the improvement of the well-being. However simple it is, to measure the green growth, we need to measure the "growth" and the first reflex in this context is to turn to the gross domestic product. The GDP is an essential tool to measure the economic growth. It is an essential indicator to understand the economic performance. However, it does not inevitably report variations of the stocks of capital, or the wealth, which are essential determiners of the growth and the present and future earnings of well-being. If it rests on the liquidation of assets, the production can grow while the wealth decreases. In this context, a country can over-exploit its resources, in the point to threaten the safety of its population (current or future), without show its balance sheet of it of development, if it leans only on the GDP. Nevertheless, several suggest resorting to new measurement tools in complement or as a replacement to the GDP. This situation highlights the necessity of finding better ways to measure the economic progress that is measures used in the side of the GDP which report in a more complete way the role of the natural capital in the economic growth, the human health and the well-being. In this article, we aim at examining about some of the essential indicators of measure of the green growth while decoupling the mystery marked around the GDP as the measurement tool for the economic growth. In fact, we shall show that it is necessary to use other measures in the highly-rated of the GDP which report the natural capital in the economic growth. During the last thirty years, the gross domestic product (GDP) stood out as measure of the green growth. As indicator of the economic growth, the relevance of the GDP is not disputed, but its capacity to report of the green growth is however questioned. This article will aim at answering four major questions:

- *What are the effects of the threats of the ecosystems on the growth?*
- *Is there a link between the GDP and the green growth and which are the failures?*
- *What are the indicators of measure of the green growth?*

Keywords: *green growth, economic growth, sustainable development, GDP, natural capital, ecosystem and well-being*

1. INTRODUCTION

The greening of the growth of an economy is first of all an environment-friendly economic growth nature which aims at reducing at least the pressures which it undergoes. The use and the efficient management of natural resources are a fundamental objective of the green growth.

Such a strategy is mainly centered on the synergies between the economic and environmental policies by considering the value of the natural capital as factor of production and growth while implementing effective ways to limit the environmental pressures. A green growth strategy also recognizes that the fact of referring to the GDP as the indicator of measure of the economic progress neglects the contribution of the natural assets to the prosperity, to the health and to the well-being. For several years, the GDP (GROSS DOMESTIC PRODUCT) is considered as a reasonable indicator of this material well-being and even as an indirect measure of the quality of life more generally. Today because of its failures regarding natural resources, the OECD developed a list of indicators of measure to follow the progress of countries regarding green growth and to cover the failures of the Gross domestic product. This article aims at answering four key issues: what are the threats which weigh on the ecosystem? And what are their effects on the growth? Is there a link between the GDP and the green growth? The does GDP take into consideration the value of the natural resources? Are there other indicators of evaluation of the green growth? This article will present all the threats which the ecosystem knew because of climate change while declining their effects on the growth, will show how to estimate the progress of the green growth and on which indicators to base it to cover all the sectors neglected by the Gross domestic product.

2. THE EFFECTS OF THE THREATS OF THE ECOSYSTEMS ON THE GROWTH

Since millenniums, the climate of the earth knew different changes which vary according periods. These changes concern long periods which limit the perception that the man can have it at some point. However these last decades stood out a period of accelerated climate change. Many articles show that the climate change establishes a terrible threat in particular for the developed countries where to those in the process of development, this through several observed changes.

2.1. The indicators of changes¹

Since the second half of 19 century several indicators show clearly the human influence on the climatic system through:

- The increase of the temperature of surface on the Earth: an increase of $0,8 \pm 0,2$ °C. The intergovernmental Group of experts on the evolution of the climate (GIEC, on 2007) considers that the world temperatures will increase by 2,8 degrees C on average before 2100 where from the risk which the world climate changes radically by the end of the century.
- The temperature of the oceans: show a global average increase since a few decades with an increase of the contents of heat energy of the ocean especially since the beginning of 1980s.
- The average level of the oceans: the level of the oceans on average annual on all the planet, amounted to a rhythm of 0,7 mm / year between 1870 and 1930 and about 1,7 mm / year after 1930. Since 1992, the measures made by satellites show an increase of the global average level of the 3,4 mm / year sea.
- The reduction of the surface of the Arctic oceanic ices: the surface of sea ices knew a very fast diminution up to 5,5 millions of km² in 2010.
- The backward movement of the continental glaciers: is observed in a way almost generalized since 3 in 4 decades, with a clear increase during the last 20 years.
- Biological indicators: the movements of ground or marine animal populations and the evolution of the dates of seasonal agricultural activities, also show the arisen of a global warming.

¹ By referring to the data of the summary report of the climatic changes GIEC-

2.2. The factors of change

There is a complex relation between these already evoked changes and the inheritable factors to have a more or less importing effect on their evolution. Since the beginning of the industrial era, the atmospheric concentrations of greenhouse gases other than the steam knew an increase higher than ever. This led to atmospheric concentrations of carbon dioxide (CO₂), methane (CH₄) and protoxide of nitrogen unprecedented (N₂O) for at least 800 000 years. So the evaluation of the ecosystems highlights an outfit of additional threats. This basket varied by factors of change divides up into indirect factors of change and those expresses in each of them include a set of multiple variables vary between the local and world ladder which influence the ecosystems and the services(departments) which they supply or immediately or in the longer term.

2.2.1. The indirect factors of change

The first set includes natural factors or human origin which leads indirectly a change in an ecosystem. There are five indirect major factors of change:

- The changes in the population: the world population has doubled during the last forty years, most of which has occurred in developing countries.
- The changes in the economic activity: the world economic activity was almost multiplied by seven during the last 50 years. With significant population growth, the demand for many ecosystem services is increasing and the consumption structure is changing as well.
- The sociopolitical factors: Decision-making processes are increasingly interested in the environment by integrating the public into decision-making.
- The cultural and religious factors: the values, the faiths and the standards which shares a group of people condition the perceptions of the world of the individuals and suggest lines of conduct, which can have important impacts on other factors of change such as the consumer behavior.
- The science and the technology: an important part of the increase of the agricultural production during the last 40 years is the fruit of an increase of the efficiency by hectare rather than an expansion of lands. This is due to the use of technological advances that can also lead to the degradation of ecosystem services.

2.2.2. Direct factors of change

The drivers of ecosystem change can also be direct. At present, the majority of direct drivers of ecosystem and biodiversity degradation, remain constant or increase in intensity. The main direct drivers of change noted over the last 50 years have been:

- Terrestrial ecosystems: the conversion to cropland and the application of new technologies have led to a change in vegetation cover, which contributes to the increased production of food, wood and fiber.
- Marine Ecosystems: Nearly half of the commercially exploited wild marine fish stocks are fully exploited and have no potential for increased fishing catches.
- Freshwater ecosystems: the construction of large dams and pollution has led to changes in the water regime.

2.3. Ecosystem threats and growth

Addressing the influence of previously mentioned ecosystem threats on growth, it is important to note that because of economic and demographic growth in urban centers, pressures on ecosystems have increased. In addition, the exodus to urban areas has reduced pressures on some ecosystems, resulting in the reforestation of some areas in industrialized countries.

Thus, economic growth is no longer dependent on the consumption of services provided by ecosystems than it was in the past.

Over the last 50 years the use of ecosystem services has increased to a much lesser extent than GDP. This reflects a change in economic structures but also a more efficient use of services and a greater availability of substitutes. Moreover, and to fight against climate change, a global policy must be put in place for the simple reason that there is no specific responsible for pollution, this phenomenon is itself global. In addition, emissions related to human activity have now reached a level that they exert significant long-term effects on phenomena. This is the case of changes in the composition of the atmosphere that have caused an increase in the average temperature on Earth, something that will negatively affect the functioning of the ecosystem (local climatic conditions, climatic zones, diagrams wind and precipitation) and which can lead to transitions in agro-economic zones.

3. THE LINK BETWEEN GDP AND GREEN GROWTH

Over the last 30 years, gross domestic product (GDP) has emerged as a measure of development. Any research to measure green growth must start from a measure of "growth" and the first indicator in this context is to think of gross domestic product (GDP). As an indicator of economic growth, the relevance of GDP is not disputed, but its ability to account for sustainable development is, however, called into question. The production of goods and services and the value of asset liquidation are used to calculate GDP (World Bank, 2010). Green growth is a development approach to promote economic growth and development while ensuring that natural assets continue to provide the environmental resources and services upon which our well-being depends. GDP is, and remains, an essential tool for measuring economic growth. It remains an important indicator for understanding economic performance. However, it does not necessarily reflect changes in capital stocks, or wealth, which are key determinants of current and future growth and welfare gains. If it is based on the liquidation of assets, production can grow while wealth decreases. In this context, a country can overexploit its resources, even to the point of threatening the security of its population (current or future), without evidence of its development record, if it relies solely on GDP. Nevertheless, many suggest using new measurement tools to complement or replace GDP. As a result, the Human Development Index (HDI), which is an indicator that encompasses more social aspects of development, is frequently used to complete the portrait neglected by GDP. Nevertheless, many suggest using new measurement tools to complement or replace GDP (UNEP, 2010). This situation highlights the need to find better ways of measuring economic progress, ie measures used alongside GDP that more fully reflect the role of natural capital in economic growth, health human and well-being. The OECD has produced several reports on green growth indicators. They aim to complement GDP by measuring and analyzing progress in decoupling pollution and resource consumption from growth, and the impact of economic activity on natural assets and the good -To be human. In the case of developing countries, these indicators can also be used to provide valuable feedback to international donors, financial institutions and corporate partners. Given the complexity of green growth, which transcends the economic, environmental and social spheres, a single indicator is not sufficient to measure progress against defined objectives. A set of indicators is needed to identify the key conditions for green growth.

4. MEASURING INDICATORS OF GREEN GROWTH

The starting point for the definition of green growth indicators take into consideration the sphere of production in which economic inputs are transformed into economic outputs (goods and services). In such a way that the growth of inputs (in particular labor, produced capital) and intermediate inputs consumed by production (ex steel in the automotive industry) represent a direct source of economic growth. However, production also involves services provided by natural assets, either in the form of natural resources, or in the form of disposal services.

The problem is that despite the centrality of services provided by natural assets, they are rarely quantified in business models and frameworks.

4.1. Indicator groups

The OECD has published several editions (2011-2014-2017) of the Green Growth Indicators report to update and expand the green growth indicators presented. Together, these indicators answer four questions that lie at the heart of green growth. The first is the efficient use of natural resources and environmental services to improve environmental productivity in terms of carbon, energy and materials and to reduce pollution. Moreover, and with a view to encouraging producers and consumers of new green economy policies must be put in place through taxes, subsidies and innovations, and this is the reason for the second concern of the indicators of the green growth. They are also interested in preserving the natural wealth of the economy in the face of the strong pressures they are undergoing (urbanization and the development of infrastructure and land development), not to mention the importance given to the quality of population life. In addition, the green growth measurement framework divides the indicators into four interdependent groups. The first set of indicators concerns the productivity of the environment and resources, corresponding to the volume of production per unit of services provided by natural assets. These indicators show the extent to which economic growth is becoming greener. They measure both productivity related to domestic production and productivity related to the final demand for environmental services (footprint approach). Monitoring the transition to green growth, also requires thinking about the stock of assets, this last includes produced and non-produced assets, and in particular environmental assets and natural resources. It is also necessary to know the extent to which the stock of assets remains intact. The considerations concerning the need to keep intact the stock of assets of society are directly linked to a quality of life dimension that reflects the interaction between people and the environment. The fourth aspect to consider is the opportunities created by environmental considerations. This set describes the economic opportunities created by green growth and the policy responses. They aim to capture policy measures that influence the behavior of producers and consumers, and economic opportunities related to innovation, the environmental goods and services sector, employment, and investment. These four sets of indicators are complemented by generic indicators describing the socio-economic context and the characteristics of growth. In general, measuring green growth requires four interrelated sets of indicators: First, indicators that reflect the eco-efficiency of production and consumption; then the indicators of the stock of natural assets; thirdly, indicators for monitoring the environmental quality of life, and finally indicators describing the responses and economic opportunities.

4.2. Principles for establishing green growth indicators (OECD)

To monitor the transition to green growth, indicators based on internationally comparable data must be used. These indicators should be chosen according to well-defined criteria. They must make it possible to send clear messages to the decision-makers as to the general public. These principles are:

- Cover in a balanced way the economic and green dimension of green growth and its main components.
- Identify key issues for which indicators are needed to provide answers.
- Organize indicators in a useful way for policy makers and the public by referring to a statistical accounting framework to help structure and combine the underlying statistics and ensure consistency across datasets.
- The careful selection of indicators that best capture the major trends related to the issues to be monitored.

4.3. Criteria for selecting indicators to monitor progress towards green growth (OECD)

A green growth indicator can serve different needs and uses and as the number of useful indicators is relatively high, it is therefore necessary to apply defined criteria to guide and validate their choice. These criteria are relative to an ideal measurement indicator, the fact to respect them all at once is a task even difficult. They are as follows:

- Political relevance: The set of indicators must be relevant for political action, it must:
 - to cover in a balanced way the main features of green growth
 - be easy to interpret and transparent so that users can assess the meaning of the values associated with the indicators and their variations over time;
 - provide a basis for cross-country comparisons;
 - can be adapted to different national contexts and analyzed at different levels of detail or aggregation
- Correctness of analysis: Indicators must be based on sound analytical foundations and be subject to consensus on their validity. They must also be able to be linked to economic and environmental models and projections.
- Measurability Indicators: must be based on available or potentially available data at a reasonable cost, of known quality, and regularly updated.

5. MEASURING GREEN GROWTH

5.1. Leading indicators

The green growth indicators are intended to monitor the path of economic, environmental and social development while respecting three key objectives. These are necessary indicators not only to monitor progress in green growth, but also to measure progress in improving resource efficiency, and reflect the overall sustainable supply capacity within the bounds of organic growth global capacity. Their effect goes beyond the stage of economic, environmental and social development and is also interested in presenting more comprehensive information to support political decision-making processes. For these reasons, initially several appropriate quantitative indicators have been suggested. And In order to define the most important measurement indicators, a number of existing indicators that are presumed in three main indicators of leading indicators has been spotted. In this context the first reflex and turn to Gross Domestic Product (GDP) .This is the first indicator in the list, it has always been the most appropriate and adequate to measure economic prosperity. With regard to quality of life and to monitor it, subjective well-being (BES) can serve as a leading social indicator, while total material consumption (TMC) per capita will also serve as a leading environmental indicator. These three indicators cover the economic, social and environmental aspects by providing reliable and effective information: in a way that in a higher GDP trend, this generally indicates a higher economic performance. As well as a higher BES reveals a higher social performance while a lower material consumption shows less pressure on the natural environment. The success or failure of comprehensive policies must be monitored to ensure sustainable growth, which ensures a high quality of life for the population while reducing the pressures that natural resources are undergoing due to increased consumption political decision-making process by providing more reliable and comprehensive information. This set of indicators covers development trends broadly, not in detail. Aggregating all growth measurement indicators into one or two indicators also has drawbacks, as they may hide important elements in the analysis or even positively illustrate negative and unwanted effects. In other words, these indicators overlook several key points. First of all, GDP is a useful indicator in the case of, for example, comparing emissions from a country's production and production. However, it is essentially the market value of economic goods and services, and therefore does not reflect the environmental externalities associated with production and consumption activities.

So we are dealing with a "gross" measure that does not take into account depletion, depreciation or asset impairment. It is an imperfect indicator of standard of living and material well-being. Thus, it is necessary to know that in terms of subjective well-being, the quality of life consists of objective and subjective elements. Objective conditions cover the political, social and economic system, which in turn determines the resources and capabilities available to each person to meet their individual needs. The possibility of feeling happy after achieving these objective conditions is the subjective part of the quality of life. There are other variables related to subjective well-being. Experiments have shown that income is positively correlated with well-being. Easterlin's paradox indicates that in the long run (10 years or more), happiness or satisfaction with one's life does not increase with the increase in a country's average income (Easterlin 2010). Richard Easterlin observed that in a given country, people with higher incomes were more likely to report a high quality of life. However, when comparing different countries with the average reported level of satisfaction, there is little variation in per capita national income in countries where average income is sufficient to meet basic material needs. (Easterlin, 1974). These special cases must be monitored with additional indicators. Other, more specific indicators need to complement leading indicators, in order to monitor more specific economic, environmental or social issues.

5.2. OECD indicators

Tracking progress towards green growth requires indicators based on internationally comparable data. These indicators should be set in a conceptual framework and selected according to well-defined criteria. Ultimately, they must be able to send clear messages to decision makers and the general public. Because of the multidimensional nature of green growth, it is difficult to measure it based on a single indicator or even three indicators. A set of indicators is needed to mark and identify the conditions for green growth. In 2011, the OECD carried out work based on the work and experience gained at the OECD, the IEA, and other international organizations, as well as in member countries and have made it possible to propose a measurement list comprising around 25 indicators. Since green growth covers several dimensions, its monitoring requires a sufficient number of indicators to capture the economic, social and environmental aspects. OECD has therefore proposed select a narrow set of indicators that capture the core elements of the green growth concept and represent a broader set of green growth issues. Flexibility is one of the features of the proposed list of indicators to enable countries to adapt it to their national context. It should also be noted that not all aspects of green growth can be measured in quantitative terms and that the indicators proposed in 2011 do not all have the same relevance across countries. Based on the principles of relevance, accuracy of analysis and measurability, an indicator list has been developed. This list highlights the main groups of indicators and the topics covered. It consists of five main groups, each of which covers well-defined themes in a total of 25 indicators. The first group concerns the socio-economic context and the characteristics of growth. Indeed, there are many green growth indicators that relate directly to the link between economic growth and the environment so that they provide information on this link. In order to interpret them, it is necessary to compare them with the socio-economic situation of the country concerned. In addition, the socio-economic context can be measured if it is described in terms of economic growth, productivity and competitiveness as well as presenting the main characteristics of the labor market, education and income. The indicators presented here are for GDP to measure market and government output and related economic activities, and national income to capture the average material well-being of individuals and households. Activity rates, the unemployment rate, the dependency ratio, and healthy life expectancy are also used to present labor market dynamics and socio-demographic characteristics. Data on economic indicators used are generally available for a wide range of countries and based on international statistical standards.

However, it is difficult to obtain time series for non-OECD countries with comparable data on the labor market situation. The second set includes indicators that relate to environmental productivity and resources. Indeed, the efficiency with which the environment and resources are used in production and consumption forms a central element of green growth, hence the need to understand their evolution and the factors that govern it. The main elements of this group concern first and foremost the carbon productivity and energy productivity that characterizes the interactions between the climate system and the global carbon cycle as well as the efficiency of energy resources used in production and consumption. Resource productivity is also an essential component of the environmental and economic efficiency with which natural resources and materials are used in the production and consumption process. It includes intangible productivity and water productivity as well as another element which is multifactor productivity. Natural resources play a fundamental role in economic activity and human well-being. They provide raw materials, energy products, water and soil, as they are a source of environmental and social services essential to the development of product, human and social capital. The physical characteristics of natural resources, their abundance and value vary across countries and regions. Their sustainable and efficient management is essential for economic growth and the quality of the environment, which places the obligation to monitor their progress by examining the stocks of environmental assets while using indicators that reflect the situation of natural assets in terms of quantity, quality and value. For these reasons, green growth focuses on measuring the availability and quality of renewable natural resource stocks, the availability and accessibility of non-renewable natural resource stocks, and biodiversity and ecosystems. Environmental results are important determinants of the environmental quality of life. Growth in output and income does not necessarily mean growth in overall welfare. As a degradation of the quality of the environment can have serious economic and social consequences. In other words, the state of the environment can influence human health. Many aspects related to the environmental quality of life concern green growth, be it health or environmental risks in terms of environmental health problems and associated costs or environmental services and amenities. The last group of green growth indicators is economic opportunities and policy responses. In fact, governments have much to contribute to promoting green growth. They define the general conditions and instruments necessary for production and consumption greener, by encouraging the use of new practices such as technology and innovation. Companies play a vital role in adopting greener management strategies and using new technologies and conducting research and development work for production. Thus there is a complementarity of role between society, public authorities and companies to provide consumers with reliable, comprehensive and useful information to decide on measures to reduce the environmental impact of increased consumption. From this, it should be added that green growth is interested in studying in this part measurement indicators that are related to: technological development and innovation; the production of environmental goods and services; international financial flows and financial prices and transfers. These indicators mainly concern R & D spending and green growth patents as well as eco-innovation experiences developed in all sectors. All of these described and measured indicators are a starting point for the new list modified in 2017 by the OECD, as the progress is noted in terms of green growth and new data. It is recognized, however, that the indicators on this first list are derived from sets whose baseline was not the measure of progress towards green growth. Further work is needed to refine and link these indicators and to fill remaining gaps. The Green Growth Indicators Report 2017 edition has updated all the indicators defined in previous editions by including new indicators that show how economic productivity measures could be adjusted taking into consideration the natural resources used and Pollution; improved indicators based on technological innovation and environmentally harmful subsidies as well as the best measures of population exposure to air pollution and its economic costs.

Other indicators have been refined, including demand-based CO₂ productivity and ecologically harmful subsidies. In addition, an increased importance is placed on the role of policy action. The measurement framework identifies 26 indicators to measure key green growth characteristics and progress, still covering the four main areas. These are the environmental and resource productivity of the economy; the natural asset base; the environmental dimension of quality of life; and economic opportunities and policy responses. As well as the indicators that describe the socio-economic context and the growth characteristics that complete the image.

6. CONCLUSION

In full awareness of the value of the natural asset and its relationship with the global economy, the world has realized that the period of the classic industrial and financial economy is stalling and that it is time to integrate policies that respect the environment for sustainable development. For a good period, companies consider the respect of the environment in their production process being a constraint and an obstacle of evolution. Today, mainly because of the harmful and remarkable effects of the degradation of the environment with all its components, the human being has grasped the link between the economy, the environment and the social dimension. Developed and developing countries are now declaring that respect for the environment is no longer a necessity but an opportunity for a better future than a present polluted with greenhouse gases. In this context of greening growth, following its progress, comparing between countries, and evaluating green growth, supposes a set of quantitative indicators able to draw all explanatory index of the situation of green growth of the country in question. Initially, the use of GDP is the best indicator for this assessment, but because of its neglect of a key element in the greening path of green growth, which is the natural asset. The weaknesses identified primarily concern that it does not necessarily reflect changes in capital stocks, or wealth, which are key determinants of current and future growth and welfare gains. In addition, and for a more complete and explanatory follow-up, the Organization for Economic Cooperation and Development has developed a list of indicators covering four essential aspects relating to the eco-efficiency of production and consumption, the stock of natural assets and the environmental quality of life, while taking into account the socio-economic context of each country's own green growth by specifying indicators relevant to it. At the end of this article, it is important to specify that these indicators are never definitive, that is why there are several updates of their list while adding and rectifying others in order to adapt the indicators to the characteristics of countries and also to provide more complete and refined information.

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SPECTRUM OF AID AND THE ILLUSION OF A MARSHALL PLAN FOR AFRICA

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ABSTRACT

On Tuesday May 28th, 2013, the billionaire and philanthropist Mr. Bill Gates attended a Q&A session at the University of New South Wales. During the session, a lady asked him: "Mr. Gates, Dead Aid, a book by Dambisa Moyo, illustrates that giving more aid to Africa over the course of the years did not alleviate poverty, instead it kept the economy crippled with governments asking for more aid. This fluke made a cycle of aid giving which resulted in nothing productive and it has not been used to solve the immediate problems and the money is not being used to make businesses sustainable in Africa. What's the foundation's view in this regard?" To which Mr. Gates responded "Books like that are promoting evil". Mr. Gates' sound bite sheds light upon aid as a topic of controversy: in his creed, aid is humane, virtuous and will do the global poor a world of good while anti-aid literature is evil. From Tibor Mende and his famous book "From aid to the re-colonization" (bestseller in the 70s) to Dambisa Moyo and her book "Dead Aid", the issue of assistance to poor countries has been much talked about. Between the fifteen billion dollars transferred to Europe under the Marshall Plan and the thousand billion dollars sucked up by the sub-Saharan Africa since independence, we have come to understand that a poorly-designed assistance automatically produces state-aid recipients. In this paper we will endeavor to weigh the geopolitical and geo-economic impacts of aid and demonstrate why aid, presumably an altruistic deed for the benefit of the poor and the needy, has sparked such a hot debate.

Keywords: *Aid, assistance, geo-economics, geopolitics, poverty*

1. INTRODUCTION

In traditional societies, the poor and the needy all had their place in the community, no questions asked about aid or assistance. The unfortunate needed the less fortunate and vice versa: mutual aid was a natural behavior and nobody never thought of it in terms of assistance. Who would have imagined that the same word would one day often designate enslaving practices against persons in distress, or serve as a justification for governments to conduct military or repressive actions against their own people? The history of debates and practices around the concept of aid shows that the inconceivable has in fact become a reality. More than a century and a half ago, Henry Thoreau was already worried about possible abuses of some voluntaristic actions: "If I knew for a certainty that a man was coming to my house with the conscious design of doing me good, I should run for my life"¹. Today, Joseph E. Stiglitz, a Nobel Laureate in Economics in 2001, cites in his book "The Price of Inequality" some otherwise edifying examples of how aid-specialized organizations such as the International Monetary Fund were able to destabilize the entire populations in Indonesia or Ethiopia for example. Thus, aid as construed by the modern language has nothing in common with aid as experienced in vernacular communities. The often spontaneous and direct relationship between two individuals called "neighbors" has turned into a highly professionalized intervention defined in medium or long

¹ Farcet G. (1998) «Henry Thoreau: L'Éveillé du Nouveau Monde-Henry Thoreau: The Enlightened from the New World», Paris, Sang dans la Terre, P.35.

terms. An intervention often coupled with an instrument of power exercised against those it claimed to serve. In vernacular societies, sharing and caring were not only moral qualities, but also guarantees of a good social cohesion. Helping your neighbor meant acting at several levels. As an individual, it allowed you to enrich your own inner world and develop your ability to compassion and charity. Socially speaking, it boosts your moral authority over the other members of the community. Collectively, these individual and social fulfillment processes favored the emergence of similar qualities across the entire community that provide each member of the society with a productive balance between the requirements of personal fulfillment and those of social development. By embarking on the path of a large-scale vision of assistance, the religious authorities have greatly contributed to its institutionalization and corruption. For the Church, it was important to offer an institutional translation of the word of Christ. The love of the neighbor had to be encouraged indeed, but it was inconceivable that a deed representing the divine justice be not exercised in the name of the Church of God, the sole qualified institution to recognize the true poor from the false. And while aid was institutionalized, it was also specialized: the love of the neighbor shall be practiced preferably for the benefit of a given institution. For those seeking to reconstruct the exact history of the concept of aid, the events that followed this first institutional takeover are particularly instructive. They show that aid and aid promotion have always enabled whatsoever government in power to impose its image and protect its own interests. In medieval Europe, the institutionalization of aid by the Church endorsed this belief: anyone who wanted to be absolved from their sins had only to pay the price, the Church would then take care of the rest. The amount paid would prompt God to find them a place in Heaven. Thus, the original charity began to turn into a curious exchange currency: the aid to the poor taking on the appearances of a tacit insurance contract in order to increase the chances of the penitent donor to escape the flames of Hell. In short, aid as it was perceived by human societies has nothing in common with that preached by the international institutions and the aficionados of the *pensée unique* –a mainstream ideological conformism-. The concept of assistance was reviewed and examined by Bretton Woods institutions which broke up with the ancestral altruistic practices and traditions whether in Europe, in Africa or the Middle East. Far from this "stone age economics" of Marshall Sahlins, Adam Smith's invisible hand has deflected aid away from its main objective which is helping the destitute to recover from a situation of adversity instead of putting them in a chronic state of dependence on donors. As the late Hassan Zaoual put it: "a poorly devised assistance generates automatically state-aid recipients".

2. THE INVISIBLE HAND OF AID

In the march to the industrial revolution and the triumph of the capitalist economy, three phenomena have more determined the mutations in the discourses and practices: the seizure of power by the People acting on behalf of the poor –the universal suffrage ensuring this new power–, the threat of pauperism, and finally the discovery of aid as an instrument of economic promotion. Pauperism was even more threatening as it meant "the state in which individuals have the right to supply their needs by using public funds legally assigned to this purpose". For all these reasons, Eugene Buret (1840) himself did not hesitate to deem it as "the enemy of our civilization." The concern of every ruling class was that the growing pauperism, unlike poverty, was not merely a personal destiny marked by misfortune but rather a social problem of unprecedented magnitude. This horde of the "bad poor", inconsistent and dangerous for society as well as for themselves, did not only embody "a disorganized, spontaneous coalition escaping every social rationality" but it also sought to monopolize all rights to this legal assistance while refusing any constraints. However, these fears and this indignation did not all have the same background: the phenomenon that some refused to interpret as a result of the Industrial Revolution was felt by others as a social threat, a challenge to the mechanisms of capital

accumulation. It is in this quite confused context that aid emerged as a possible solution to the problems created by the industrial evolution. In theory, the new economic discourse on the issue of misery remained ambiguous: on the one hand, it claimed that the new sciences and wealth production techniques would know how to eradicate poverty once for all, on the other hand, it had to recognize that social and economic inequalities were not only an integral part of this production system, but they were in many ways the support and counterpoint thereof as they represent a reservoir of unmet needs essential to this very new productive system. Thus, misery had some benefits as long as it was not scandalous .i.e. as long as it was only a natural or social inequality. Charles Dunoyer (1825), a pioneer of social economy, considered for instance -and he was not alone- that a “well-behaved and mellowed out” poverty was one of the conditions for economic prosperity and the proper functioning of a production system based on the division of labor. These inequalities had another advantage: By their sole influence and without any resort to violence, they had the power to beget more inequalities and thus produce large discrepancies in the degree of freedom which everyone could enjoy. This poverty had therefore its place in the logic of the self-regulating forces and the “invisible hand” of the market which are supposed to restore order and equilibrium at every moment, including during disturbances by factors exogenous to economy. One of the first to express reservations about the magical power of this “hand” is the Reverend Thomas Robert Malthus, described later by Keynes as “the first economist of Cambridge”. This economist, famous for his pessimistic theories on population, is also the one who placed the emblematic figure of “the Irish peasant” at the center of a hypothesis which went then against the grain of mainstream thinking. If this analysis of Malthus is so particularly relevant to us here, it is because it announced the revolutionary turn that would lead to a utilitarian and modern perception of aid: now that it is commoditized, aid will no longer be but an instrument of governance and subtle control of its target populations. The “Irish peasant” who haunted Malthus throughout his life, a poor quite similar to the poor in vernacular societies, symbolized a human archetype rather ominous for the future of the economy: eating only potatoes and dressed in rags, he seemed not attracted by any means to owning objects. He used to consume only what he produced and never bought a thing, and yet he seemed content with his lot. As a veritable anti-homo economicus, he was a permanent threat to economic growth. It is the persistence of men and women of similar behavior within society that led Malthus to two conclusions:

- That the “invisible hand” of the economy is not sufficient to ensure the smooth running of the productive system “at least as long as the Irish peasant would resist the seduction of manufactured needs”.
- That for the system to sell its products, it should start helping this peasant so that his needs match as much as possible those of the economy.

The actual social assistance will no longer signify the supply of lifebuoys thrown here and there to give a chance of survival to useless mouths: it will be transformed into a dynamic and preventive instrument prompting each and every one to meet the production needs.

3. INTERNATIONAL AID & POVERTY: WHAT ALTRUISM IS IT?

Despite the theoretical differences that we have just mentioned, there is a common aspect to human societies: the fight against all sorts of poverty. If the causes and remedies are different, the objective is widely accepted. The idea that some humans could be facing famine, doomed to an early death, illiteracy or a second class citizenship is contrary to what the concept of justice means to most of us. We know that all the great religions were concerned about fairness, inciting or even compelling their followers to regard the fight against extreme poverty as a moral duty. In fact, when addressing the fight against poverty by a donation, be it in kind (give a little or a lot of one’s time), in cash or material (goods), it is difficult to dissociate the act as such - defined

as altruistic – from the mentioned moral duty. "The disadvantage of sociological altruism is that it is perceived with values: right/wrong, good/bad, free/totalitarian, just/unjust) that make it incompatible with economic reasoning This moral altruism should be corrected by returning to the philosophical tradition.... In economic philosophy, altruism corresponds to an extended rationality expanding economic calculation to the relationship that individuals have with their social environment." ² "Essentially by definition, an altruist is willing to reduce his own consumption in order to increase the consumption of others." ³ This is a benevolent altruism. When an individual gives a coin to a beggar on the street or some of their time to an elderly person or shares their home with a poor etc... without turning this act into a media event or even disclosing it, this is generosity, solidarity, altruism. This was the case for example of the ARTC (Association for Research on Treatment against Cancer) in France at the end of the last century. This is also the case of some public corporations for the jobless and rehiring firms. The payment of government subsidies for the integration or reintegration of people in difficulty does not mean the ability to ensure a social follow-up that would attain reintegration. This is somehow usurping public funds. Similarly, the payment of monetary amounts to charity can sometimes be a matter of a disinterested altruism, and sometimes of an interested altruism. In France, for example, a monetary donation to a recognized public utility association (such as Restaurants du Cœur) is compensated by a (monetary) reduction of the income tax. This mechanism introduced by the public authority raises several questions:

- The "donations" are not managed (managerially speaking) spontaneously by the donor but are organized and institutionalized. The state seeks to influence the behavior of households via tax incentives and it is possible to imagine that this behavior could have been different for some of them should there be no tax reduction in counterpart.
- An objection can be made immediately when all donating households are not all subject to income tax. Still, they have no financial benefit. The act of donating has then a specific externality for taxable households. This does not mean that they are not altruists but it is more likely that the computation of the tax reduction is one element - among others - that influences the choice and amount of the donation(s).
- In these conditions, can we consider that the donations from both (different) categories of households refer to the same altruism? Undoubtedly, they seek to mitigate the effects of poverty and / or partake in research breakthroughs that affect us all but it is arguable that in a market society, an act of donation has in counterpart a counter-donation -not symbolic as in other societies- but monetary. Non-taxable households make a social and / or moral "profit" out of their donations. Other households also derive a monetary benefit as the distinction between households by income class is established beyond the sources of their income and their respective expenses.

It is still possible to question the benevolent or malicious nature of altruism based on the advertisement that accompanies certain actions. If, basically, no one can argue that giving to the poor is a selfless act, the fact is that sometimes this act is revealed to the public while sometimes it is carried out with utmost discretion. Asserting one's generosity with or without a monetary counterpart such as the reduction of income tax in France, may mean that the donor searches the esteem of their entourage. The initiative makes sense only if it is related to what sociologists call the social interaction. Donating motivation and helping the poor depend then (at least partly) on how they appear in the eyes of the other whose recognition and approval are solicited by the donor. The individual act is not so disinterested and does not fall out of the societal framework.

² Jarret M-F. et Mahieu F.-R. (1998) « *Economie publique: théories économiques de l'interaction sociale-Public Economics: economic theories of social interaction* », Paris, Ellipses, p. 82

³ Becker Gary S. (1997) in Jarret et Mahieu *op. cit.* p. 21

This type of behavior seems even more plausible when advertising donations becomes the norm. In a context of mass dissemination of information and media explosion, does the "Peoplisation" of charitable organizations and foundations that are continuously seeking donations for "just causes" denote altruism? The jury is still out! "And what if the stars were only icons entrusted to do good business for the humanitarian industry." ⁴ The President of UNICEF France confirmed bluntly: "Yes, we need the "Peoples", they offer us easy access to the media and arouse donors' interest in our cause. Emmanuelle Béart's press conference testifying to what she saw in Sierra Leone has become an event." ⁵ The actress states in the same article that she "does not believe in altruism... but rather in exchange." This example is not exhaustive, yet is indicative of the "commodification" of aid, of the fight against inequality, of the fight against deprivation, of suffering and it is not for sure that this is done for the benefit of recipients only. Other associations such as Médecins Sans Frontières (MSF) chose to appeal to generosity by phone or the Internet, no showcasing on television. Finally, regarding the limits of "organized altruism", we would like to mention a few conclusions of the Audit office in January 2007, on the management of donations in the wake of the "natural" disaster, the Tsunami. In France, 340 to 350 million euros were collected plus 67 million euros of public aid. The report states that only one third was spent due to the flooding of international aid. The budgets were significantly too high for the actual on-site staff to manage. One can also read in this report that part of the donations received by charitable organizations or international agencies was redirected. The UNICEF for example transferred 57.4 million euros to its headquarters in New York. For the Red Cross and Catholic Relief Services, the percentage of amounts used compared to donations is about 40%. The amounts available can be granted to local NGOs, to intermediaries, namely in the building sector and public works. In an article published in "Le Nouvel Observateur", Serge Paugam (2013) underlined the enthusiasm for private solidarity "in the form of an appeal to generosity via the media This would be perceived sometimes with higher virtues than public solidarity which is often considered as bureaucratic and impersonal ... Of course, one must not despise this generosity, but must remember that it cannot be considered as an alternative to collective solidarities as conceived at the end of the nineteenth century." A little further on, the author denounces after all the fact that governments often react on the basis of one thing at a time and that more visible solidarity actions are those that take place in an emergency. "The news highlight, periodically, all the visible signs of a solidarity that we think spontaneous, but which is actually entertained by the media." Fighting against poverty via public policies and / or private solidarity, akin to altruism, has limitations and challenges theorists. For Van Parijs (2003), justice should be sought .i.e. allow everyone - not just in theory (location) - to have access to goods and services. «It is more about what is given to each and not what they do with it, it helps them achieve their own conception of life and not a particular conception that the society would consider superior to others. » That means to define a method whereby it is possible to offer opportunities to everyone and thus adhere to ethics without preaching morals. This is a major challenge for the theory of "modern" justice. A conception of an acceptable justice according to the author and which should be egalitarian in the sense that "it must express a form of material solidarity between all members of the concerned society.... Justice is not a matter of equity in exchange.... Nor is it a matter of collective optimality understood as the production of acts globally effective for the common interest. Some inequalities can be righteous, but only if they help improve the lot of the less advantaged. » Fighting inequalities may consist in acting upon the chances and capacities, real chances and concrete capacities. It doesn't mean to express intentions or show compassion.

⁴ «Le Nouvel Observateur», Feb 22nd -28th, 2007, p. 94-97

⁵ Ibidem

Galbraith considers the latter as “the most truly conservative course. There is no paradox here. Civil discontent and its consequences do not come from contented people--an obvious point to the extent to which we can make contentment as nearly universal as possible, we will preserve and enlarge the social and political tranquility for which conservatives, above all, should yearn.”⁶ Long before Galbraith, Simmel in his reflection on the sociology of poverty had “a disillusioned look on charity and the private⁷ and public philanthropy, these do not represent an end in itself but a means to achieve the cohesion of the society and the guarantee of social ties” (Paugam, 2013, 47). Does assistance aim to primarily satisfy the recipient? The donor? The established order? The example of the British trade unions (quoted by Simmel) which help the unemployed union member allows to understand that, on the one hand, they seek to alleviate income inequality but, on the other hand, they also preempt job seekers who will go now to offer their free work capacity at a lower salary, which would have the effect of lowering wages in their sector of activity. The author goes even further: helping the poor through assistance means to avoid riots, violence to obtain income through various ways; it's even to guarantee a certain stability to society to the extent that assistance is, in fine, conservative. “The goal of assistance is precisely to mitigate certain extreme manifestations of social differentiation so that the social structure can continue to be based on this differentiation” (Paugam, 2013, 49). We find this critique of assistance to the global poor with Thomas Pogge⁸. The international economic interaction is considerable and, contrary to Rawls, the author thinks that poverty and extreme poverty are not due to domestic (or national) causes. While it is true that some Asian and African countries had a comparable level of GDP per capita in the 1960s and that the African countries were largely outstripped 50 years later, this differentiation in the trajectory cannot be explained by domestic factors which, according to Rawls, are likened to the political culture, the religious, philosophical and moral traditions, the demographic policy, the governments etc. For Thomas Pogge, we must not ignore or obscure the burden of a history tainted by unspeakable horrors: sordid slavery, unscrupulous colonialism and even atrocious genocides. “Though these crimes are now in the past, they have left a legacy of great inequalities which would be unacceptable even if peoples were now masters of their own development ... By seeing the problem of poverty merely in terms of assistance, we overlook that our enormous economic advantage is deeply tainted by how it accumulated over the course of one historical process that has devastated the societies and cultures of four continents. »⁹ Since the end of colonialism the world economic order has been based on rules in favor of the rich countries by protecting them, for example, from developing countries imports via the World Trade Organization (WTO). The control of information, of expertise, of production and access to Information and Communications Technology (ICT), gives rich countries a greater power of negotiation so that this world economic order reflects more the interests of the businesses and citizens of rich countries and, de facto, less those of the poor countries. In these conditions, assistance as an adjustment variable cannot reduce inequality - as little - but instead allows to maintain a hierarchy of wealth levels.

⁶ Van Parijs Ph. (2003) « *Ethique économique et sociale-Social and economic ethics* », Paris, La découverte, p.5.

⁷ Philanthropy is therefore flourishing, especially in the USA where charitable endeavors are legion. The new philanthropists are however increasingly straying away from the traditional methods of foundations management. In fact, they are seeking to make their structures more financially and socially efficient while dreaming of the advent of philanthro-capitalism” The Birth of Philanthrocapitalism, The Economist, translated into French by F. Boisivon in « *Problèmes économiques* », n°2912, December 6th, 2006.

⁸ Pogge Th. (2003), Porter assistance aux pauvres du monde-Assisting the global poor-, *Raison publique*, n°1, Octobre, Bayard, pp. 104-108, translated to French by P. Savidan.

⁹ Pogge Th. (2003), Porter assistance aux pauvres du monde-Assisting the global poor-, *Raison publique*, n°1, October, Bayard, pp. 104-108, translated to French by P. Savidan.

To support his thesis, the author borrows the story attributed to Peter Singer “of a healthy young professor who, walking by a shallow pond, sees a small child in it about to drown. Surely, Singer says, the professor has a duty to save the child, even at the cost of dirtying his clothes. And similarly, he argues, we have a duty to send money to poverty relief organizations that can, for each few dollars they receive, save one more child from a painful hunger death.”¹⁰ In the eyes of Thomas Pogge this perspective reinforces the common moral judgment that the citizens and the rich countries are as responsible for poverty as the healthy young professor is for the child. Several reasons explain this widespread feeling in developed countries:

- Psychologically speaking, it is a source of comfort for the people living in the developed world.
- Considering that the domestic factors are responsible for poverty means underestimating or ignoring the global factors. Since some countries are developing and others are not, it is possible to achieve the eradication of poverty on the basis of the domestic factors.
- Many governments in poor countries are corrupt which is hardly attributable to the world economic order but rather to the behavior of certain elites who do not care about the living conditions of their compatriots. Only after having established democracy and the rule of law in these countries that reforms at the world level could be initiated.

Pogge prefers to emphasize that there is no corruption with neither the corrupted nor the corrupter! Corruption has the effect of enriching a minority at the expense of a majority maintained in a state of poverty or extreme poverty: lack of transparency in awarding public contracts, import licenses granted in return for the most generous kickbacks, bribes in arms industry, imports of unnecessary and overpriced products, etc... in other words, squandering public money and / or diverting revenues. Worse, "bribed politicians accept the development of sex tourism, the import of toxic products and waste, the location of polluting companies, the forced labor of young children", etc. That is to say so many causes¹¹ that do not serve the interests of the local population but that hinder their welfare and therefore, development. The solution to poverty and extreme poverty is not public assistance if it maintains the disparity in living standards, nor the private generosity of some and altruism of others (that must not be ignored) whose impact is very limited. Without hushing up the (co) responsibility of certain elites in the poor countries, according to Pogge, we must really:

- reduce the harm caused.
- not take advantage of injustice at the expense of those who endure it.
- compensate the poor .i.e. reduce the impact of unfair global rules that result in positive externalities for rich countries (such as the exploitation of natural resources in poor countries) and negative externalities for poor countries (inveiglement of their resources, environmental pollution, namely greenhouse effects due mainly to rich countries' consumption patterns).

4. BACK TO THE SOURCES OF FAILURE OF AID TO AFRICA

Between 1948 and 1952, the United States transferred more than 13 billion dollars (100 billion dollars today) to assist in the reconstruction of Europe after World War II. We agree to acknowledge the resounding success of the Marshall Plan to rebuild the European economies devastated by war.

¹⁰ Singer P., (1972), « Famine, Affluence and Morality », *Philosophy and Public Affairs*, 1, 249-43 in Pogge Th. (2003), *Porter assistance aux pauvres du monde-Assisting the global poor-*, *Raison publique*, n°1, October, Bayard, pp. 104-108, translated to French by P. Savidan.

¹¹ The IMF latest estimates are edifying: the amount of money laundered is tenfold or even more since 1990. Other than drugs and forgery, the underground economy covers the trafficking in human organs, endangered species, industrial waste, counterfeit money, handguns and nuclear centrifuges.

The plan did not only ensure the economic success of recipient nations, it also contributed, in the opinion of many analysts, to the restoration of political and social institutions of crucial importance for peace and prosperity today in Western Europe. This is true, but even if the idea of aid policy to Africa arose from the success of the Marshall Plan in Europe, these are two completely different realities. Presenting the positive results of the Marshall Plan as a promise of similar achievements in tomorrow's Africa is completely wrong. Why?

First, the European nations were not totally dependent on aid. Despite the ravages of war, the economic revival of Western Europe was already underway; the continent had other resources. At their peak, the flows of the Marshall Plan represented only 2.5% of the GDP of the main recipient countries, such as France and Germany, and somehow they never exceeded 3% of the GDP of any country in the five year term of the program. Africa, long submerged by aid, receives today assistance for development equivalent to almost 15% of its GDP, more than four times the Marshall Plan at its peak. According to Dambisa Moyo (2009) "Given Africa's poor economic performance in the past fifty years, while billions of dollars of aid have poured in, it is hard to grasp how another swathe of billions will somehow turn Africa's aid experience into one of success."¹² In addition, the Marshall Plan was time limited. The United States had set a target, the European countries accepted the terms of the contract and signed the document. Money flowed abundantly for five years only. In contrast to the Marshall Plan financial injection, decisive but short, Africa has, generally speaking, received uninterrupted support for at least fifty years. An ongoing aid for an unlimited duration so that no effort would be needed. Thus, in the absence of any explicit threat of aid interruption, and as nothing inspires the feeling that one day it could end, African governments have had to consider the aid as a permanent and secure source of income; they have no reason to think that the lakes of lucre will not continue to flow indefinitely. There is no incentive to build long-term financial plans, no rhyme or reason to look for other ways to finance development when all you have to do is sit and wait quietly for your check to cash. Crucially, the Marshall Plan context was so different from the African context. Before the war, the devastated European nations had already the necessary institutions: they had an experienced public service, well-managed companies, an administration of the courts and effective social organizations. After the war, all it took was an injection of money to restart the machine. The Marshall Plan provided an aid for reconstruction, not for economic development. No matter how wrecked Europe was, it had a structure in place, a political, economic and physical structure, while, despite the infrastructure inherited from colonialism, Africa had not experienced any effective development. Building, and not rebuilding, the political and social institutions requires more than money. The flow of billions of simoleons of aid, poorly controlled and regulated as little as possible has resulted in undermining the establishment of these institutions as well as of a sustainable growth. In this respect, the recent and successful experience of Ireland (before the subprime crisis), which received substantial sums from the European community, cannot be cited as evidence that aid might work in Africa. For, as the post-war Europe, Ireland had the institutions and infrastructure required to master and control aid and make it produce a significant economic impact. Ultimately, while the aid provided by the Marshall Plan targeted the physical infrastructure mainly, assistance to Africa covers almost every aspect of the economy. In most poor countries today, the aid is channeled to the public service, the political institutions, the military, public health, education, infrastructure.... The more the scope of aid is extended the more corrosive aid is, and the greater aid dependency culture is. Aid advocates underline the economic success of the countries which today have ceased to be assisted after having received assistance in the past. These are countries such as those of the IDA (International Development Association).

¹² Moyo D., *L'aide fatale-Dead Aid*-, Editions JC Lattès, 2009.

They are twenty-two countries and they include some of the emerging countries that experienced the greatest economic successes: Chile, China, South Korea, Thailand and Turkey. Three of them only are African: Botswana, Equatorial Guinea (mainly because of the discovery of oil deposits) and Swaziland. Aid champions suggest that these countries have substantially reduced poverty, increased income and improved the living standards thanks to a large-scale assistance. However, as in the case of the Marshall Plan, it should be noted that the aid flows in question were relatively moderate (i.e. less than 10% of the GNP) and of short duration. Botswana, often cited as the classic example of a good student of the IDA, had actually received substantial foreign assistance in 1960 (20% of the GNP). Between 1968 and 2001, the average economic growth of Botswana per capita reached 6.8%, one of the highest in the world. But it is not aid that is to be held accountable for this performance. Botswana had vigorously pursued a policy favoring the market economy and that is the key to its success - its trade policy was open to competition, monetary stability was sought and the fiscal discipline observed. Crucially enough, in 2000, the aid to Botswana represented only 1.6% of the national income, that is to say, a tiny proportion compared to aid nowadays in so many African countries. The success of Botswana lies in the fact that it ceased to be aid dependent. Until the middle of the first decade of the 21st century, many believed that aid was synonymous with poverty reduction. The theses which were developed afterwards came to deny this approach. In her book "Dead Aid", Dambisa Moyo cites the fictitious example of an African manufacturer of mosquito nets. He produces about 500 nets per week. He employs ten people who, as usual in Africa, maintain each fifteen relatives. Despite their hard work, these people cannot make enough nets to effectively combat the malaria-carrying mosquitoes. A Hollywood star enters the scene, runs a crowdfunding campaign and bullies Western governments into sending 100,000 mosquito nets to the region. The operation amounts to one million dollars. The nets arrive and are distributed. A good altruistic action is accomplished. But once the market was flooded with these nets, the local manufacturer had to close down. His ten employees can no longer feed the 150 souls who depend on them (and who are now forced to live on alms), bearing in mind that in maximum five years the majority of the imported nets will eventually be torn and useless. This is the micro-macro paradox. An effective intervention in the short term can have only very few lasting benefits. Worse, it risks to unintentionally undermine the existing chances, no matter how fragile they are, of any authentic sustainable development. Thus, at first sight, aid appears to have a positive effect. But with hindsight, we see that not only the overall situation did not improve, but it worsened. In almost all cases, short-term assessments create a false impression of aid success. But this kind of assessments is not relevant when it comes to tackling Africa's problems over the long term. We should measure the effectiveness of aid by questioning whether it contributes to sustainable long-term growth and lifts up the greatest number of individuals out of poverty. And from this perspective, aid proves to be a failure. That is said, the proposal of a new food aid formula launched at the Food Aid Conference in Kansas City in 2005 was an attempt to give a new direction to the policy of assistance which could benefit African farmers. The said proposal would allow a quarter of the US Food for Peace budget to be used for the purchase of food in poor countries, rather than only buy food from American farmers and ship it by sea. Thus, instead of flooding the American food markets and ruining the local farmers, this strategy would lead to use aid money to buy the products from the local farmers and distribute them to the locals in need. Going back to the example of mosquito nets, one could imagine that the donors would buy those nets from the local manufacturers and then sell them or give them to the locals. This approach should be applied to all problems. Aid advocates argue that aid works - but that rich countries are not generous enough. They plead that if Africa was given a "big helping hand" i.e. a substantial increase in aid for the decisive investments, Africa could have escaped the persistent poverty trap. In fact, Africa needs increased aid, massively increased aid. Only then things will truly improve.

In 2000, 180 countries subscribed to the Millennium Development Goals (MDG). This eightfold action plan targeted health, education, environment preservation, child mortality, and the alleviation of poverty and hunger. In 2005, the program cost was revalued: an additional injection of \$ 130 billion per year would be needed to achieve the objectives of the MDG in a number of countries. Two years after the collective commitment to this program the United Nations organized an international conference in Monterey, Mexico on the theme: Financing for Development, during which donor countries promised to increase their contributions (an average of 0, 25% of their GNP) and bring them to 0.7% in the belief that the annual additional 200 billion dollars would finally settle the persistent problems of Africa. In practice, most of the commitments made by donor countries were not honored, and aid champions, clinging to the failure of donor countries, saw in it the reason for the backwardness of Africa. But the notion of giving "a big helping hand", the decisive thrust, skirts one of the great problems of aid, namely that it is fungible - that the amounts assigned to a certain goal can be easily diverted, and used differently, especially for irrelevant or even harmful projects. It's noteworthy that the uncontrolled flow of aid always runs the danger of being consumed rather than invested, lining up the pockets of individuals instead of landing in the public treasury. When this happens, and it often does, no sanction is imposed, no punishment is inflicted. More subsidies means more corruption. One of the gloomiest aspects of this aid fiasco is that donors, politicians, governments, academics, economists and specialists all know deep within themselves that aid does not work, that it never has and it never will. In his comment on some assistance action, the Director of Government Economic Services at the UK Ministry for Trade and Investment made this remark: "They know it is pure hot air but it sells their T-shirts." Welcome to the real world! Countless studies and reports (often carried out by donor countries) showed that, after several decades, and after billions of dollars spent, aid had not had any appreciable impact on development. Examples: Clemens in 2004 recognized that there was no sustainable impact of aid on growth, Hadjmichael (1995) and Reichel (1995) found a negative relationship between aid and savings, Boone (1996) concluded that aid had financed consumption rather than investment. On the other hand it was demonstrated that foreign aid had increased public spending and unproductive consumption, and failed to promote investment. Even a cursory glance at the available data suffices to suggest that, while aid has soared over time, growth in Africa has been declining and has been accompanied by a more accentuated poverty. Over the last thirty years the most aid-dependent countries can boast an average annual growth rate of less than 0.2%. For the majority of these countries the direct consequence of aid was tailspinning into poverty. While before the 1970s most economic indicators were on the rise, a decade later Zambia was economically ruined. Bill Easterly, professor at New York University and former economist at the World Bank, notes that if Zambia had converted all the aid received since 1960 into investments and had relied on market growth, it would have had in early 1990s a per capita GNP of around 20,000 dollars. Instead, Zambia GNP was lower than in 1960 and was less than 500 dollars per capita! In fact, it should be thirty times higher than it is today. Between 1990 and 1998 aid to Africa skyrocketed from 11 to 66%, a staggering progression, only to see about 600 million Africans controversially trapped in poverty. The case against aid stands on firm ground, it is so persuasive that even the IMF which plays a leading role in this area warned the fervent supporters who pin high hopes on aid and see in it the instrument of a development it cannot eventually stimulate. The IMF also recommended that governments, donors and organizers of various campaigns be more modest in their statements and not pretend that increased aid would solve the problems of Africa. We would like that this moderation be the prelude to real change. The most mind-boggling aspect of this issue is that there is no other area of human activity, be it business or politics, where one would not think to change course and would persevere in error in spite of compelling evidence of utter failure.

Such is the status quo: sixty years, over one trillion dollars spent on aid to Africa and a result that is more than modest. If aid was just harmless, if it just did not do what it had claimed to do, this paper would not have been written. The problem is that it is not harmless, it is evil. It is not part of the potential solution, it is part of the issue. In fact, aid is the issue.

5. CONCLUSION

Whether at a national or international level, aid aims primarily at helping the alleged "donors" to maintain the devices that perpetuate their positions of power and social privileges, while depriving the poor of their own means to fight against poverty. For the poor, this aid embodies the logic of an economy which not only commits all humans to often harmful external donations that are beyond their control, but also which destroys the great human and social balances that the vernacular lifestyle of the poor had created to help them confront necessity. The social system this economy seeks to establish in lieu may lead to the perpetual "quarantining" of many people and the dislocation or even the implosion of their societies. It institutionalizes a form of secular charity that transforms the beneficiaries into permanent aid-dependents, thus more and more dependent on a system of needs that corrupts both body and soul alike. We easily understand now why the promoters of major international meetings regularly held in favor of helping the poor - one of them which gathered Heads of States in March 2002 at Monterrey, Mexico, - carefully avoided any debate on the root causes of the production of misery and injustice. In fact, they are well aware that a careful examination of these cases would unveil the fraud perpetrated today worldwide under the brand of aid. Indeed, such a debate risks to disclose the perverse collusions, often structural, which, always in the name of aid, unify the leaders of the North and the South against their own "subjects". And when, for the sake of propaganda, the Northern "generous donors" threaten to reduce their "aid" on the grounds that the recipient governments are corrupt, this examination would eventually reveal all the machinery set up by these same donors to "help" these "rogue" governments rule over their own populations. Finally, a serious investigation of the underlying reasons for these maneuvers would demonstrate to the world opinion that the most of the aid destined to eligible poor countries is intended whether to strengthen military and coercive programs or to restructure their economies to be adapted to the requirements of the sole global market. Hence this bitter conclusion: what we insist on calling aid is but an expense to strengthen the structures that generate misery. However, the victims who are stripped of their real properties are never assisted since they seek to stand out from the global productive system in order to find alternatives in concert with their own aspirations.

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TRIANGULAR DEVELOPMENT COOPERATION IN AFRICAN COUNTRIES

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ABSTRACT

Triangular development cooperation involves the DAC/OECD donors, providers of South-South cooperation and recipient countries. The aim of the paper is to show the scale of and trends in triangular development cooperation in African countries over the period from 2001 to 2016. The analysis is based on the data retrieved from the OECD.Stat and reports of aid development agencies of DAC members. In the years 2001-2016, donors provided 601.6 US\$ billion (in constant 2015 US\$) of official development assistance (ODA) to Africa. The major bilateral donors were the United States, the United Kingdom, France, Germany, and Japan. A half of ODA was directed to ten African countries. Donors supported mainly social and economic sectors. In general, bilateral and multilateral foreign aid has been dominated in Africa. However, small triangular cooperation programmes, the majority of which focus on providing technical assistance in form of experts and training, have been observed in African countries. In the group of DAC donors, Japan is the most engaged in triangular development cooperation in Africa. The main pivotal countries are Brazil, China, and India. In turn, Egypt, Kenya, Morocco, South Africa, and Tunisia are the major African providers of South-South cooperation to other African countries.

Keywords: *development assistance, economic development, LDCs, South-South cooperation*

1. INTRODUCTION

In the twenty-first century, the rise of triangular development cooperation (TDC)¹ has been observed. TDC involves one or more providers of development cooperation, one or more providers of South-South cooperation and recipients². In most cases high-income countries fully (or partially) finance development cooperation, middle-income countries provide South-South cooperation, and middle-income or low-income countries are beneficiaries. Providers of South-South cooperation play the role of pivotal countries. This type of TDC complements and builds a bridge between North-South and South-South cooperation. There are also other combinations possible, for instance middle-income countries work together to provide development assistance to a third country or multilateral organisations are involved in cooperation. Triangular development cooperation is considered to be more effective than bilateral assistance (Nowak, 2013, 2014). Southern contributors have more relevant experience to the needs of recipient countries. Moreover, they are closer to recipients and often similar in culture and historical experience. TDC is an important mean of implementing the 2030 Agenda for Sustainable Development (Sakurai, 2015). The aim of the paper is to show the scale of and trends in triangular development cooperation in African countries over the period from 2001 to 2016. The analysis focuses on TDC in which a member of the Development Assistance Committee (DAC) is the provider and emerging donors or African countries are the pivotal countries. It is based on the data retrieved from the OECD.Stat and reports of aid development agencies of DAC members. The engagement of donors in triangular development cooperation was analysed by many authors (McEwan and Mawdsley, 2012; Abdenur and da Fonseca, 2013;

¹ Donors also use expressions other than triangular cooperation such as trilateral cooperation, trilateral assistance, tripartite cooperation, tripartite agreement, reverse linkages or development partnership (OECD, 2013a).

² There is no internationally agreed definition of triangular development cooperation. Many different concepts of TDC are presented for instance in OECD (2013b).

OECD, 2013a and 2013b; and Lengfelder, 2016). The main contribution of the paper to the discussion on TDC is a presentation of the rise of cooperation between the DAC donors and providers of South-South cooperation to implement development programmes/projects in Africa in the twenty-first century.

2. TRENDS IN DEVELOPMENT ASSISTANCE TO AFRICA

In the years from 2001 to 2016, all donors provided 601.6 US\$ billion (in constant 2015 US\$) of official development assistance (ODA) to Africa. The value of net ODA rose from 22.3 US\$ billion in 2001 to 44.4 US\$ billion in 2016. The highest amount of aid African countries received in 2013 (47.2 US\$ billion). During the analysed period, 65.0% of the total ODA to Africa were directed to 34 least developed countries. In 2001, all donors provided 14.9 US\$ billion to the poorest African countries and they doubled that amount of aid (29.3 US\$ billion) in 2016. Donors were increasing their aid to Africa at 4.4% per annum and at 4.3% to the African LDCs. Trends in the net ODA disbursements to Africa's 34 LDCs and all African countries are presented in Figure 1.

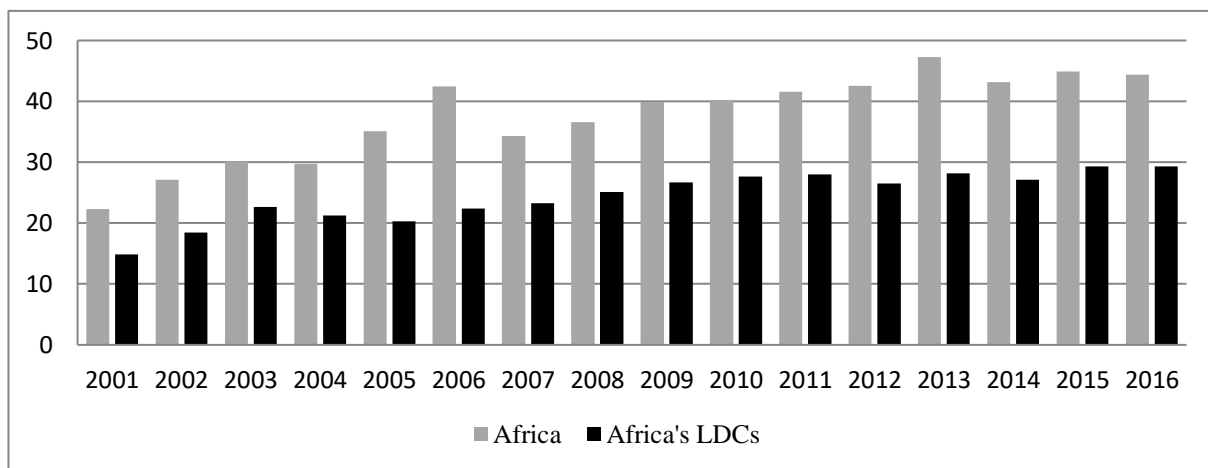


Figure 1: Net ODA disbursements to Africa in the years 2001-2016 (2015 US\$, billion)
(Source: Own calculations based on OECDStat, 2018)

In the years 2001-2016, Africa received 59.3% of the net ODA from members of the Development Assistance Committee, 37.2% from multilaterals and 3.4% from non-DAC donors. Africa's least developed countries were supported mainly by DAC donors (58.2% of the total net ODA) and multilaterals (40.8%). Non-DAC donors provided only 1.0% of the total ODA to that group of countries. The largest bilateral DAC donors by the amount of assistance were the United States, the United Kingdom, France, Germany, and Japan. In the group of DAC donors, Portugal and Ireland first of all support African countries. They allocated more than half of their development assistance budget to Africa during the analysed period (Table 1). The DAC donors have their preferred countries in Africa which they support more intensively. For instance, Slovak Republic directs its development assistance mainly to Sudan, Poland to Angola, Hungary to Mozambique, Belgium to Democratic Republic of the Congo (DRC), Greece to Egypt, Iceland to Malawi, Portugal and Slovenia to Cabo Verde, and Austria to Cameroon. Among African countries Tanzania is the first recipient of Japan's, the Scandinavian countries', and Korea's ODA. Ethiopia is the largest recipient of the American, Canadian, and Czech aid. Main recipient countries of DAC donors in Africa are presented in Table 2. In general, DAC donors supported mainly a few African countries. Over the period 2001-2016, the largest beneficiaries were Ethiopia, DRC, Nigeria, Tanzania, and Mozambique. The value of net ODA to those countries accounted for 31.4% of the total aid to Africa. Top ten recipients received 51.3% of total official development assistance to Africa (Table 3).

Table 1: Top ten DAC donors by the amount and share of aid to Africa, net disbursements in the years 2001-2016 (Source: Own calculations based on OECDStat, 2018)

54 African countries				34 African LDCs			
Value (2015 US\$ billion)		Africa as % of the donor's aid		Value (2015 US\$ billion)		Africa's LDCs as % of the donor's aid	
The US	107.4	Portugal	67.3%	The US	72.2	Ireland	47.5%
The UK	46.4	Ireland	53.2%	The UK	39.2	Portugal	41.7%
France	44.1	France	40.3%	France	19.0	Iceland	30.8%
Germany	31.0	Luxembourg	36.9%	Germany	14.9	Belgium	28.7%
Japan	18.5	Belgium	36.9%	Japan	12.5	Luxembourg	27.2%
Netherlands	14.5	Iceland	31.1%	Netherlands	10.9	The UK	24.3%
Canada	12.5	The UK	28.7%	Norway	9.1	Poland	24.0%
Sweden	11.1	Denmark	28.4%	Sweden	9.1	Denmark	19.8%
Norway	10.2	Italy	27.8%	Canada	9.0	Italy	18.7%
Belgium	9.9	Poland	25.7%	Belgium	7.7	Finland	18.2%

Table 2: Main recipients of DAC donors in the years 2001-2016 (Source: Own calculations based on OECDStat, 2018)

DAC donor	Recipient country (percentage of the donor's net disbursements (in 2015 US\$) to Africa)
Australia	Zimbabwe (15.3%), Sudan (8.7%), Kenya (7.0%), Egypt (6.7%), Mozambique (6.5%)
Austria	Cameroon (27.9%), Nigeria (12.0%), Egypt (8.8%), DRC (5.8%), Uganda (5.5%)
Belgium	DRC (35.5%), Rwanda (6.4%), Burundi (6.5%), Côte d'Ivoire (3.9%), Cameroon (3.7%)
Canada	Ethiopia (10.6%), Ghana (7.9%), Mali (7.9%), Tanzania (7.9%), Mozambique (7.5%)
Czech Republic	Ethiopia (26.4%), Angola (11.0%), Zambia (10.5%), Namibia (5.9%), Egypt (4.3%)
Denmark	Tanzania (14.7%), Mozambique (11.8%), Ghana (10.6%), Uganda (10.6%), Kenya (6.7%)
Finland	Tanzania (17.6%), Mozambique (15.8%), Ethiopia (9.7%), Kenya (9.6%), Zambia (8.3%)
France	Morocco (10.0%), Côte d'Ivoire (9.2%), Nigeria (8.1%), Senegal (6.5%), DRC (6.2%)
Germany	Nigeria (10.9%), Cameroon (8.4%), DRC (6.5%), Egypt (6.1%), Morocco (6.0%)
Greece	Egypt (34.3%), Ethiopia (9.0%), Sudan (7.3%), DRC (7.0%), Nigeria (6.1%)
Hungary	Mozambique (39.6%), Tanzania (25.5%), Nigeria (8.5%), Algeria (5.3%), Tunisia (4.6%)
Iceland	Malawi (34.3%), Uganda (25.4%), Mozambique (22.2%), Namibia (11.0%)
Ireland	Mozambique (14.9%), Uganda (14.0%), Ethiopia (13.5%), Tanzania (11.8%)
Italy	Nigeria (17.6%), DRC (14.6%), Mozambique (13.3%), Ethiopia (7.9%), Tanzania (3.5%)
Japan	Tanzania (11.3%), Nigeria (10.3%), Kenya (5.5%), DRC (5.2%), Ethiopia (5.1%)
Korea	Tanzania (17.4%), Ethiopia (10.5%), Mozambique (10.1%), Ghana (7.8%), Angola (7.7%)
Luxembourg	Burkina Faso (14.7%), Cabo Verde (14.6%), Mali (14.5%), Senegal (14.4%), Niger (11.2%)
Netherlands	Ghana (8.4%), DRC (7.9%), Tanzania (7.8%), Ethiopia (7.0%), Mozambique (7.0%)
New Zealand	Sudan (12.7%), Tanzania (11.2%), Zimbabwe (11.0%), South Africa (10.5%)
Norway	Tanzania (12.0%), Mozambique (9.4%), Sudan (8.9%), Uganda (8.1%), Malawi (7.9%)
Poland	Angola (50.5%), Ethiopia (30.6%), Tanzania (8.1%), Kenya (4.0%), Sudan (0.7%)
Portugal	Cabo Verde (32.4%), Angola (23.7%), Mozambique (23.1%), São Tomé and Príncipe (7.6%), Guinea-Bissau (5.9%)
Slovak Republic	Sudan (59.8%), Liberia (21.2%), Kenya (12.6%), South Sudan (2.6%), Mozambique (1.3%)
Slovenia	Cabo Verde (31.3%), Burundi (9.3%), Rwanda (6.9%), Uganda (6.5%), Egypt (4.3%)
Spain	Morocco (12.1%), Mozambique (7.6%), DRC (7.1%), Senegal (6.9%), Tunisia (6.5%)
Sweden	Tanzania (13.2%), Mozambique (12.3%), DRC (9.1%), Kenya (6.9%), Uganda (6.2%)
Switzerland	Mozambique (8.7%), Tanzania (8.3%), Burkina Faso (7.9%), Mali (5.2%), Chad (4.8%)
United Kingdom	Nigeria (18.6%), Ethiopia (10.5%), Tanzania (8.5%), DRC (6.3%), Ghana (4.9%)
United States	Ethiopia (9.3%), Sudan (8.2%), Kenya (7.4%), DRC (7.2%), Nigeria (5.5%)

Table 3: Top ten ODA recipients in Africa, net disbursements in the years 2001-2016 (in 2015 US\$, billion) (Source: Own calculations based on OECDStat, 2018)

Country	Value	% of total aid to Africa	Country	Value	% of total aid to Africa
Ethiopia	44.7	7.4%	Egypt	27.4	4.6%
DRC	39.9	6.6%	Kenya	25.2	4.2%
Nigeria	39.3	6.5%	Uganda	23.6	3.9%
Tanzania	36.7	6.1%	Sudan	22.4	3.7%
Mozambique	28.4	4.7%	Ghana	20.9	3.5%
			Other recipients	293.1	48.7%

Donors financed first of all social infrastructure and services in African countries. The second most supported sector was economic infrastructure and services. African countries received also a lot of humanitarian aid. The sectorial distribution of bilateral ODA commitments to 54 African countries is shown in Figure 2.

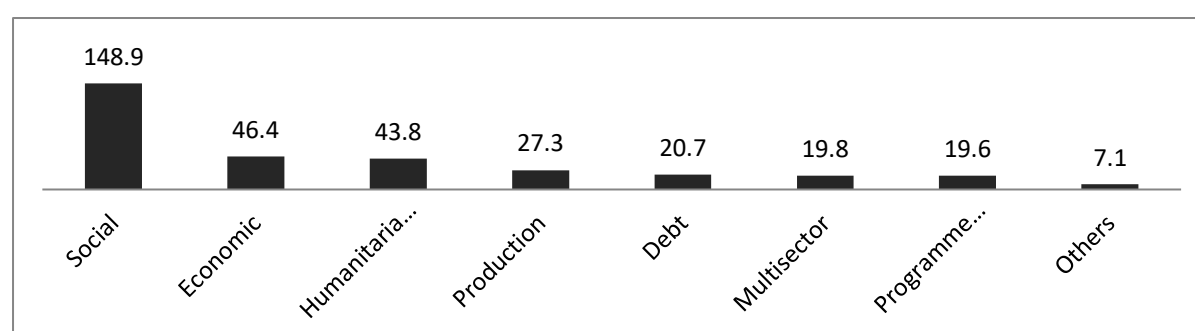


Figure 2: ODA commitments to Africa by sector in the years 2007-2016 (2015 US\$, billion) (Source: Own calculations based on OECDStat, 2018)

In the years 2007-2016, the structure of total aid provided to Africa was the following: social infrastructure and services 44.7%, economic infrastructure, production sector, and multisector 28.0%, humanitarian aid 13.1%, action relating to debt 6.2%, commodity aid/general programme assistance 5.9%, and unspecified aid 2.1%.

3. THE RISE OF TRIANGULAR DEVELOPMENT COOPERATION IN AFRICA IN THE 21ST CENTURY

Japan is one of the major bilateral donors promoting triangular cooperation in Africa. It has been supporting Kenya in implementing the Regional Training Course on Promotion of Social Forestry in Africa (1995-2005), the Regional Training Course on Enhancing Adoption of Social Forestry in Africa (2005-2009) and recently the Regional Training Course on Mitigating Climate Change in Africa through Social Forestry. Since 2001, Japan and Kenya have been working together on strengthening mathematics and science education in African countries. It is worth noting that Kenya is a beneficiary of Japan, the Philippines, and Malaysia in training its secondary education mathematics and science teachers. In 1998, the Government of Japan and the Government of Egypt signed Egypt-Japan Triangular Technical Cooperation Programme for Promotion of South-South Cooperation in Africa. The objective of the programme is to support human resources development in African countries mainly through joint training programmes and dispatching experts. Japan transfers technologies, dispatches Japanese experts and finances expenses equivalent to 85% of total amount of a training course. Egypt covers the remaining 15% of costs. The training programme on Rice Cultivation Techniques for Africa, Warm Water Fish Production, and Food Processing Industry were the main courses completed by those countries (JICA, 2018). In 1999, Japan-Tunisia Triangular

Technical Cooperation Programme for Promotion of South-South Cooperation in Africa was concluded and in 2003 Japan-Morocco Triangular Technical Cooperation Programme for Promotion of South-South Cooperation in Africa. Japan has funded Tunisian experts in fishery techniques, navigations and shipbuilding mechanics to conduct training programmes in Mauritania (2002-2004) and Gabon (2006-2008). With Japan's financial support, Morocco has been developing cooperation with African countries in fishery, sea food processing, road rehabilitation, and maternal and child healthcare. In the years 2012-2014, Japan funded 70% of the training courses in port management for participants from West and Central Africa which were organised by Moroccan specialists. Japan has also supported South Africa in the police training and capacity building in the Democratic Republic of the Congo. In 2007, Japan in cooperation with Sri Lanka³ launched the Programme of Quality Improvement of Health Service by 5S-KAIZEN-TQM⁴ Approach. The main objective of the programme was to equip medical and health practitioners and health ministry officials in African countries with a new management approach for improving the quality of health facilities and services. In the years 2007-2008, the programme was implemented in Eritrea, Kenya, Nigeria, Madagascar, Malawi, Senegal, Tanzania, and Uganda. Benin, Burkina Faso, Burundi, DRC, Niger, Mali, and Morocco benefited from the programme in the years 2009-2010. Tanzania and Madagascar were the most successful in the implementation of the Japanese method of management in their healthcare systems. Japan and Brazil jointly implemented the Training for Capacity Building of the Josina Machel Hospital in Angola in 2007 and the Triangular Cooperation for Agricultural Development of the Tropical Savannah in Mozambique in 2009. Professionals from the Josina Machel Hospital and other Angolan hospitals were trained by Brazilian experts in five areas: hospital administration, equipment maintenance, nursing care, radiology, and laboratory. Japan coordinated and financed the training activities. Japan and Brazil collaborate in Mozambique to create a new model of sustainable agricultural development in tropical savannah region of that country. Japan and Brazil have also collaborated on an improvement of children's health services in Madagascar. In the years 2008-2010, Japan contributed to Indonesia's agricultural programmes implemented in Egypt, Kenya, South Africa. Moreover, it supported Vietnam's rice production project in Madagascar. Germany is the second most engaged donor in TDC⁵. It has committed 5 million Euro for trilateral development projects implemented in Africa in the years 2007-2013. The German and South African Governments established a Trilateral Cooperation (TriCo) Fund in 2007. Under the TriCo Fund, Germany supports South Africa's political and development engagement in a third beneficiary African country. The triangular cooperation makes use of experiences and knowledge of both countries and also their human and institutional resources. The TriCo projects are initiated by a request from a third country, South Africa, Germany or a regional organisation. Projects receive substantial funding by Germany. However, they must contain contributions of each of the countries. South Africa is supposed to contribute financial and technical resources at least of 30 per cent of the overall project costs. The contribution of the third country is negotiated individually. The TriCo Fund supported the South African projects in Tanzania (the Fire Management and Coordination Project), Democratic Republic of the Congo (the Post-Conflict Reconstruction and Development Project) and South Africa (the African Ombudsman Research Center Project).

³ In 2000, the Japanese-style management method was successfully implemented in one of the public hospitals in the capital of Sri Lanka

⁴ The approach consists of the three stages of 5S (sorting, setting, shining, standardising, and sustaining for a better working environment), KAIZEN (a participatory productivity improvement method through incremental and reflective group action), and TQM (total quality management – a management tool for improving overall performance and quality).

⁵ Germany is first of all involved in TDC in Latin American countries (Lengfelder, 2016).

It financed also the organisation of national anti-corruption summit and a project on the training of police oversight bodies in DRC. In 2010, Germany and Brazil signed an agreement that lays the foundation for triangular cooperation in Lusophone Africa. For instance, Germany is working with Brazil to support Mozambique's National Institute of Metrology (GIZ, 2018). The United States set up a small number of triangular development cooperation programmes in Africa. They developed cooperation with Brazil, India, and China. In 2010, the US and Brazil signed an agreement to enhance joint activities and expand technical cooperation in Africa. The cooperation focuses on economic development, education, food security, health care, women's issues, and social inclusion. In Mozambique, the US and Brazil cooperate to reduce poverty through improvement of the productivity of vegetable crops and agro-processing techniques. What's more, they work together to improve the health and nutrition of school-aged children and on the monitoring, evaluating, and civil society strengthening on HIV/AIDS (USAID, 2018a). They also implemented the programme of prevention and control of malaria in São Tomé and Príncipe. The US and Brazil set up a triangular development cooperation project to train nationals of Guinea Bissau in public administration. In Portuguese-speaking African countries, they combat child labour. The US and India have been working together to promote food and nutritional security in Kenya, Liberia, and Malawi. Participants from those three African countries were trained in food processing, agricultural marketing, dairy management, and other best practices to prevent post-harvest losses. Moreover, the United States cooperate with India in sharing and transferring innovative Indian soil and water management techniques in Kenya and Malawi. With the US' support, Indian innovations and best practices in family planning, child and maternal health care have been transferred and adopted in a few African countries (USAID, 2018b). The US collaborated with China to improve higher education facilities in Liberia. The countries completed the rehabilitation of the University of Liberia's Fendell Campus School of Engineering. Among African countries, the United States cooperate mainly with South Africa to utilize South African experts to provide needed services in other African states. The United Kingdom supported some of South Africa's Post-Conflict Reconstruction and Development initiatives in Sudan. Besides, the UK has been working with Brazil across Africa (Ethiopia, Kenya, Mozambique, Niger, Senegal, Malawi, Zambia, Mali, Ghana, Tanzania, Cameroon, Burkina Faso, and Lesotho) to strengthen food security, increase agricultural productivity, and improve resource management (OECD, 2018). The two countries cooperated in enhancement of social protection programmes in Ghana and Kenya. In 2009, at the first China-UK Business Summit, the UK and China agreed on a plan for China-UK-Africa agricultural cooperation. The first projects on improvement in agricultural production capabilities were initiated in Malawi and Uganda. China shared its experience in agriculture with the beneficiary countries. In the years 2012-2017, the United Kingdom provided funding for China's project on malaria control and prevention in Tanzania. The UK finances also an application of India's technological innovations and innovative health financing reforms in African countries. Over the period 2010-2015, the countries collaborated on the project on clean cooking and solar lighting in Ethiopia and Kenya. In the years from 2001 to 2004, Tunisia-Niger-France triangular cooperation took place. France supported training of Nigerien physicians by Tunisian doctors. France also cooperated with Brazil on training in agriculture in Mozambique and training in the area of fish-farming in Cameroon. In 2016, the Africa-China-France Trilateral Cooperation Seminar took place in Beijing. France and China discussed key issues of their triangular development cooperation in Africa. The collaboration is concentrated on the development of infrastructure and health. Moreover, in that year, at the fourth bilateral meeting between France and South Africa in Paris, the idea of triangular cooperation between France, South Africa and a third Francophone African country (Algeria, Madagascar, Senegal) came about. The areas of cooperation are engineering sciences (with a focus on nanotechnologies), marine science, health, environment, and climate change.

Canada supported South Africa in strengthening of public sector capacities in post-conflict countries such as Burundi, Rwanda, and South Sudan (Besada and Tok, 2015). Canada and Tunisia agreed to conduct a triangular development cooperation programme together on establishment of a trade and export promotion structure in Niger. In the years 2006-2011, Canada collaborated with India to improve infrastructure in Kenya, Tanzania, and Zimbabwe. Canada and Poland signed agreement on trilateral cooperation in sub-Saharan Africa in 2006. Since 2015, Canada has been cooperating with Israel on the Greater Rural Opportunities for Women Project in Ghana. Sweden has been involved in triangular cooperation in Africa by financing South Africa to provide police training and capacity building in Rwanda and other regional initiatives in which South Africa takes part. Norway has funded training courses in the field of nursery in African countries run by Egypt. It has cooperated with South Africa to implement aid projects in Burundi and funded training of South Sudanese policy by South Africa. Moreover, Norway cooperated with Brazil in promotion of good governance in Angola and Guinea-Bissau. Belgium funded Egyptian experts working in Africa and Luxemburg Tunisian experts working in Mali (2004-2006). Denmark financed renewable energy technology transfer from China to Ghana and Zambia in the years 2014-2018. Portugal cooperates with Brazil to promote the sharing and utilisation of knowledge and technology in agro-food sector in Mozambique, Cabo Verde, São Tomé and Príncipe, Angola, Guinea-Bissau, and Equatorial Guinea (OECD, 2018). Switzerland is engaged with South Africa as partner in trilateral cooperation in DRC, Burundi, and Sudan. Italy set up triangular development cooperation with Tunisia and Niger in order to improve quality of Nigerien healthcare system through short and medium term professional training. It has also developed some activities in cooperation with Brazil to improve mass transport infrastructure and modernisation of traffic control in Mozambique. In 2007, Korea and Egypt cooperated to provide training projects in information and communication in African countries. Between 2007 and 2009, Korea collaborated with Peru to enhance seed potato production in Algeria. There is little evidence that the remaining DAC donors have been involved in triangular development cooperation in Africa. Moreover, Austria, Greece, Netherlands, Slovak Republic, and Slovenia were not engaged in any form of triangular cooperation before 2012 (OECD, 2013a). In turn, Spain has been primarily involved in TDC in Latin American countries.

4. CONCLUSION

In the years 2001-2016, donors provided more than 600 US\$ billion (in constant 2015 US\$) of official development assistance to Africa. The major bilateral donors were the United States, the United Kingdom, France, Germany, and Japan. A half of ODA was directed to ten African countries. Donors supported mainly social and economic sectors. In general, bilateral and multilateral foreign aid has been dominated in Africa. Triangular development cooperation happens in African countries, particularly through technical assistance in form of experts and training. Donors cooperate mainly in the areas of agriculture, health, and education. The volume of triangular development cooperation in Africa is small. However, it is difficult to estimate it since donors don't report the exact amount of their financial resources involved in this type of cooperation. In the group of DAC donors, Japan is the most engaged in triangular development cooperation in Africa. The main pivotal countries are Brazil, China, and India. In turn, Egypt, Kenya, Morocco, South Africa, and Tunisia are the major African providers of South-South cooperation to other African countries.

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FROM BEHAVIORAL ACCOUNTING TO AGGRESSIVE ACCOUNTING

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ABSTRACT

Modern approach to accounting began to appreciate the impact of a human on the way to interpret accounting data, and hence on the presentation of economic events in the financial statements. Approach, which draws attention to the human factor in accounting is known as behavioural accounting. Behavioural accounting study the impact of the psychological aspects of human behaviour on accounting processes. The genesis of mainstream behavioural accounting is the result of criticism of the main assumptions of economics and finance. Accounting dogma is an assumption of the efficiency of capital markets, where investors take a fully rational decisions, assessing risks and return on alternative investments. Behavioural accounting is defined as a "multi-disciplinary field that draws on theoretical construction of behavioural sciences". All processes related to accounting: planning, budgeting, decision making, control and financial reporting have behavioural aspects. Behavioural accounting investigates the areas, which are related to the behaviour of accountants and others involved in the accounting system, rejecting the foundation of economic rationality of behaviour. Analysed areas covers increasingly occurring creative and aggressive accounting.

Keywords: *behavioral accounting, aggressive accounting, modern approach, accounting data*

1. INTRODUCTION

Accounting is a system of continuous recognition, grouping, presentation and interpretation of general and specific numerical data, which are expressed in monetary terms and remain in balance, about the economic activity and situation of an enterprise¹. "Accounting is a service which involves providing quantitative information, mainly financial in nature, about economic entities. This information is used to take economic decisions and make rational choices between alternative courses of action"². The term "accounting" is understood as a comprehensive and cohesive system of continuous and systematic collection and processing of data and the presentation of economic and financial information³. Accounting should also be defined as an information system of a given economic entity that performs management functions. By performing these functions, accounting identifies, measures, gathers and processes data, analyzes and evaluates economic phenomena and processes, and presents financial information to a variety of users⁴. According to A. Karmańska, accounting is a basic economic information system of every enterprise. Accounting serves both internal and external stakeholders, who use the information provided by the system to make different decisions⁵. The American Accounting Association defines accounting as a process of identification, measurement, processing and reporting of economic information allowing for the formulation of opinions and decisions by

¹ Cf. Skrzywan S., Teoretyczne podstawy rachunkowości, PWE Warszawa 1969, p.5;

² Cf. Krzywdą D. Rachunkowość finansowa. Fundacja Rozwoju Rachunkowości w Polsce, Warszawa 1999, p.14;

³ Cf. Podstawy rachunkowości. (ed. K. Sawicki), PWE Warszawa 1999, p. 14;

⁴ Cf. Olchowicz I. Podstawy rachunkowości. Część I, DiFin, Warszawa 1995, p. 12;

⁵ Cf. Karmańska A. Wartość ekonomiczna w systemie informacyjnym rachunkowości finansowej. DiFin Warszawa 2009, p. 29;

users of information⁶. In the traditional approach, accounting treats an individual in an automatic way – presenting him in the system as, on the one hand, the person responsible for aggregating and presenting data and, on the other hand, as the recipient of information. In the modern approach to accounting, there is a growing awareness of the impact an individual has on how economic events are interpreted and, as a result, presented in financial statements. The approach that recognizes the human factor in accounting is referred to as behavioral accounting. Behavioral accounting investigates the impact of psychological aspects of human behavior on processes implemented in the field of accounting. The emergence of the behavioral trend in accounting stems from criticism of the main assumptions of economics and finance. Accounting is dogmatized by the assumption of the efficiency of capital markets, where investors make fully rational decisions, while assessing the risk and return on alternative investments. Behavioral accounting is defined as “a multidisciplinary field that draws on the theoretical constructs of behavioral sciences”⁷. All processes related to accounting – planning, budgeting, decision making, control and financial reporting – have behavioral aspects. Behavioral accounting therefore examines those areas that are related to the behavior of accountants and other persons involved in the accounting system, while the economic assumption of the rationality of behavior is rejected. This, in turn, gave rise to increasingly popular creative accounting and aggressive accounting.

Table 1: The perception of a human being in accounting

Scope of accounting	Field of reference	The perception of a human being
Accounting in a wider sense	Economics, management, law	Neglecting the role of an individual or treating people in terms of the “automatic” part of the accounting system
Behavioral accounting	Psychology, sociology	Visible human behavior, emotions, attitudes
Neuroaccounting	Biology, chemistry, medicine	Neural processes in the human brain

Source: Artienwicz N. Neurorachunkowość jako potencjalny, ale trudny kierunek rozwoju rachunkowości, Zeszyty Teoretyczne Rachunkowości, vol. 82, no. 138, Warszawa 2015, p.12;

Behavioral accounting is also viewed as one of the accounting methods. It recognizes key decision makers as part of a company's value. Behavioral accounting was developed so that the behavioral effects are transparent to potential and current shareholders. It was implemented in order to better understand the impact of all business processes and opinions on individual decision makers whose decisions are reflected in the present and the way in which it may affect the entity's situation and its perception in the future.

Table following on the next page

⁶ Cf. Nowak E. Rachunkowość zarządcza w obliczu decentralizacji zarządzania przedsiębiorstwem, [in:] E. Nowak (ed.) Rachunkowość w zarządzaniu zdecentralizowanym przedsiębiorstwem, Polskie Wydawnictwo Ekonomiczne, Warszawa, 2001, p. 11

⁷ Cf. Lord T.A. The development of behavioral thought In accounting 1952-1981 Behavioral research In Accounting Cambridge, 1989, p.124;

Table 2: Selected aspects of financial accounting and behavioral problems

Financial accounting	
Selected aspects	Behavioral problems
Application of IAS and IFRS	The adoption of solutions included in the IAS/IFRS in enterprises that do not have such an obligation (a voluntary decision) and their application in entities obliged to do so
Accounting policy	The right to choose from various solutions (methods, principles, instruments) in enterprises applying national accounting law. The right to choose, that is accounting policy in enterprises applying IAS/IFRS
Preparation of financial statements	Financial statements are the effect of such activities as: accounting policy in use, the options used to value assets. Misstatements are a crime against the market, shareholders and investors

Source: M. Bąk, Problemy behawioralne w rachunkowości przedsiębiorstwa, p. 56;

Behaviorism in accounting can lead to generating a variety of problems. The potential manipulation of financial reports is one of the most serious issues and it is caused by deregulation. A number of researchers still consider it unacceptable to include certain fundamental concepts of behavioral science in accounting, but the entire research area referred to as behavioral accounting has been successfully developing since the 1960s as a response to the prevailing normative approach in financial accounting and as an alternative to accounting research based on the efficiency of capital markets⁸. Behavioral accounting is a science that seeks to demonstrate the laws governing accounting related behavior – both of those who do the accounting, who work in the field of accounting, and of those who supply accounting data or are the recipients of accounting information⁹. Behavioral studies in accounting are not a homogeneous group, yet they concern the behavior of people involved in the accounting system. Simultaneously, it is assumed that the economic rationality of people is limited, and the choices and decisions we make are influenced by emotions and instincts that are an inherent part of human behavior.

J.G. Brinberg, J.F. Shields distinguished five major schools in behavioral accounting, namely¹⁰:

1. managerial control,
2. accounting information processing,
3. accounting information system design,
4. auditing research,
5. organizational sociology.

Behavioral research in accounting started in the 1950's. The main research topics are presented in the table below.

Table following on the next page

⁸ Cf. Breikreuz R. Behavioral Accounting Vs Behavioral Finance. A comparison of the Related Research Disciplines. Grin Verlag 2009, p.7;

⁹ Cf. Nowak M. Rachunkowość zarządcza, rachunkowość behawioralna – dwie strony tego samego medalu [in:] Rachunek kosztów i rachunkowość zarządcza. Teoria i Praktyka, (eds.) E. Nowak, Z. Kes, Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu, no. 374, Wrocław 2015, p.158;

¹⁰ Cf. Brinberg J.G., Shields J.F., Three decades of behavioral accounting research. A search for order, Behavioral Research in Accounting vol. 1

Table 3: Behavioral research in accounting

Major themes in behavioral research in accounting
1960 – 1970
Research on accounting behavior focused on issues such as: - impact of managerial control and budgeting on behavior, - incentive and motivation in accounting, - communication and understanding of accounting information by managers/accountants
1970 – 1980
The creation of methodological and contextual foundations. Research focused on how information should be provided, what type of information should be provided, how much information should be provided. Research concerned: - models of impact on an individual decision maker, - use of experimental methods of cognitive and social psychology in accounting, - information processing in accounting, - information system design, - use of Brunswick's lens model of perception,
1980 – 1990
Studies revealed that people have limited rationality that affects the search for information and its processing. Research focused on: - limitations of the decision maker, - heuristics and biases in behavioral research in accounting, - depreciation techniques
1990 – 2000
Interest in the conditions in which specialist knowledge leads to successful completion of accounting behaviors and what learning mechanisms should be used to achieve this. The focus was also on how accounting affects the behavior of the individual decision maker and, therefore, how economic prediction models can be improved. The subject of the research was: - learning functions, - decision support systems, - psychological variables.
2000 – to date
Diversification and specificity of research that pertains to: - beliefs and probability assessments, e.g. study of hindsight, - knowledge structures, - behavioral issues in negotiations, - group decision making in the context of accounting

Source: Jaworska E. Perspektywa behawioralna w rachunkowości w świetle wybranych teorii psychologii motywacji, Zeszyty Naukowe Uniwersytetu Szczecińskiego no. 830, Finanse, Rynki Finansowe, Ubezpieczenia no. 70, Szczecin 2014, p. 52;

In the context of financial reporting in behavioral terms, M. Mastalerz pointed to the following problems¹¹:

- Does the information included in financial statements affect the valuation of shares and can it be used by investors to make an above-average return?
- How quickly and how strongly do investors react to the information included in the financial statements?
- Which information included in the financial statements is the most important for investors and affects their decisions most significantly?
- Is the market reaction to the information included in the financial statements rational and consistent with the expectations of the persons preparing these statements?
- Do changes in accounting policy (e.g. in terms of valuation methods) affect the valuation of shares and decisions made by investors?

¹¹ Mastalerz M. Użyteczność sprawozdań finansowych w świetle finansów klasycznych i behawioralnych, Zeszyty Teoretyczne Rachunkowości, no. 57 (113), SKwP, Warszawa 2010;

2. BEHAVIORAL ACCOUNTING AND THE RECIPIENTS OF ACCOUNTING INFORMATION

Behavioral enterprise theories that explain how an enterprise operates are based on the analysis of the goals of individuals and groups working within its structure. Behavioral models investigate motivations of the management and other groups operating in the enterprise¹². From the point of view of behaviorally oriented accounting, the behavior of the recipients of information is important, since they are not only the addressees of this information, but they also create it.

Table 4: Recipients of accounting information

Stakeholders	Goals, expectations, benefits
Shareholders	Attractive investment, an increase in the value of the enterprise, dividends, benefits, power and status
Supervisory board	Security and growth of the enterprise: care to comply with legal norms, responsible management, remuneration, status
Management	Personal professional success: high salary, a share in profits, increase in the value of shares, bonuses and other benefits, professional and social status
Employees	Quality of life and professional success, high income, stability, employment, the opportunity to improve professional qualifications
Creditors	Attractive investment: return on capital with interest, security, power
Customers	Satisfying needs, mutually beneficial cooperation: security and stability of supplies, good quality products, professional customer service, consultancy
Suppliers	Processing and growth, beneficial cooperation, an increase in their company's value
Competition	Competition respecting moral principles and professional ethics, fair play
Society	Justice and development: creation and maintenance of jobs, high income, support for education and culture
Analysts and rating agencies	Information: preparation of an investment-related opinion about a company, information for the society and specific groups on the enterprise's position
Ecologists	Sustainable development, care for the ecosystem, monitoring the direct impact of an enterprise's activities on the natural environment
State	Prosperity, stable financial system, high income, creation and maintenance of jobs

Source: E. Maćkowiak Potrzeby informacyjne akcjonariuszy i interesariuszy a raportowanie wartości [in:] Sprawozdawczość i rewizja finansowa. Problemy kwantyfikacji wartości / Bronisław Micherda, Mariusz Andrzejewski. - Kraków: Wydaw. UE w Krakowie, 2013, p. 144;

The recipients of accounting information are simultaneously the co-creators of information at the moment of making subsequent financial decisions. Obviously, financial decisions taken by internal and external stakeholders are primarily influenced by financial and economic aspects. However, these decisions depend on behavioral aspects since the behavior of stakeholders stems from a variety of economic, financial, psychological and environmental factors. In the process of the preparation of financial statements, the persons in charge make many decisions that concern, for example, relevant legal regulations. In this case, the management may decide to comply with national laws – the Accounting Act – or international regulations. The decisions may also concern solutions selected as part of the accounting policy. The financial statements provide information to a wide group of recipients. They can be divided into two groups: internal recipients and external recipients. The basic group of external recipients comprises investors and shareholders.

¹² Bąk M. Problemy behawioralne w rachunkowości przedsiębiorstwa, s. 52;

“Information should enable the assessment of investment risk and investment performance, measured by various indicators, also used to assess strategic decisions taken inside the enterprise”¹³. The analysis of the groups of financial information recipients reveals the existence of a conflict between shareholders and stakeholders. The conflict may concern the scope of information needs. In the case of enterprises operating in European countries, external and internal recipients are treated in the same way. The situation is different in the United States, where the financial statements are primarily addressed to shareholders, investors and creditors. Other recipients of information are treated in a secondary way¹⁴. According to A. Kamela Sowińska, “International Accounting Standards are one of the possible sources of corruption in accounting at various stages of creating accountings records and how it affects the valuation, wealth and revenue of an enterprise”¹⁵.

3. BEHAVIORAL, CREATIVE, AGGRESSIVE ACCOUNTING AND ACCOUNTING ERROR

The combination of behavioral accounting, neuroaccounting and corporate social responsibility with traditional accounting gives an enterprise an opportunity to consciously create its image in an attractive and desirable manner. Neuroaccounting as such is the study of human behavior – neurophysiological processes that take place in the brain. This is the next step in research concerning the relationships between accounting and broadly understood psychology.

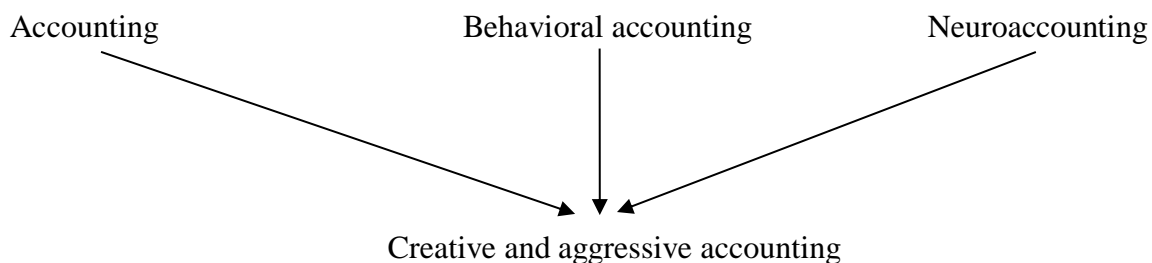


Figure 1: Classification of accounting
Source: own elaboration;

Literature provides a number of concepts which are used interchangeably when manipulating accounting results. These manipulations are referred to as “creative accounting”, “aggressive accounting”, “cooking the books”. Recently, two concepts have gained in popularity: creative accounting and aggressive accounting. They tend to be treated as synonymous and are perceived as an exclusively negative phenomenon¹⁶. In the search for the definition of creative accounting, aggressive accounting and accounting error, it should be noted that literature does not provide an explicit definition of creative accounting. S. Surdykowska argues that only innovative accounting solutions that are fully legal can be defined as “creative accounting”¹⁷.

¹³ Cf. Sobańska I. Wpływ MSR na integrację rachunkowości: rachunkowość finansowa i rachunkowość zarządcza, Zeszyty Teoretyczne Rachunkowości vol. 13 (69), SKWP Warszawa 2003, p.250;

¹⁴ E. Maćkowiak Potrzeby informacyjne akcjonariuszy i interesariuszy a raportowanie wartości [in:] Sprawozdawczość i rewizja finansowa. Problemy kwantyfikacji wartości / Bronisław Micherda, Mariusz Andrzejewski. - Kraków : Wydaw. UE w Krakowie, 2013, p.148;

¹⁵ Kamela-Sowińska A. Międzynarodowe Standardy Rachunkowości a korupcja [in:] Międzynarodowe i krajowe regulacje rachunkowości i ich implementacja, wyzwania, bariery, (eds.) I. Sobańska, W.A. Nowak, Wydawnictwo Uniwersytetu Łódzkiego, Łódź 2006, p. 30;

¹⁶ E. Maćkowiak, Rachunkowość kreatywna a rachunkowość agresywna – próba poprawy wyniku finansowego jednostki gospodarczej, zeszyty naukowe Uniwersytetu Szczecińskiego, Szczecin 2015, p.144;

¹⁷ E. Maćkowiak, Od rachunkowości kreatywnej do oszustw księgowych wpływających na poziom wyniku finansowego przedsiębiorstwa, Studia i Materiały Miscellanea Oeconomicae, 2015,

Other accounting practices that are unlawful and deliberately mislead users of financial statements should be defined as accounting fraud¹⁸. E. Mączyńska defined creative accounting as record keeping, data processing and presentation of business operations based on regulations and properly interpreted accounting principles in a way that is not directly indicated in these regulations, but rather the result of ingenious, creative and non-standard application of accounting provisions and principles¹⁹. E. Mączyńska pointed out that practices related to accounting fraud should not be called “creative accounting” but “aggressive accounting”. Hence, two types of accounting are distinguished:

- creative accounting,
- aggressive accounting.

Aggressive accounting is a deliberate, conscious and intentional practice of keeping inaccurate records, incorrect processing and presentation of economic events in a manner inconsistent with relevant regulations or based on incorrectly and intentionally misinterpreted accounting rules and principles²⁰.

Table 5: Creative accounting and aggressive accounting

Creative accounting	Aggressive accounting
The exercise of the right to choose an accounting policy within the boundaries of the law in accordance with the concept of a reliable and clear picture, in order to present the enterprise's image in accordance with the assumptions defined by the management.	The exercise of the right to choose an accounting policy, the freedom of which is not limited in any way, in a manner that leads to the manipulation of financial data with an intention to mislead the recipients of information included in the distorted financial statements.

Source: A. Wiercińska, Granice między kreatywną, agresywną i oszukańczą rachunkowością, Prace i Materiały Wydziału Zarządzania Uniwersytetu Gdańskiego no. 2, Gdańsk 2008, p.146;

The definition of accounting error should come from the International Standard on Auditing, where error, as an unintentional distortion of financial information, is caused by²¹:

- arithmetical mistakes or mistakes made by employees of a given entity in accounting entries and other accounting data,
- an oversight or incorrect interpretation of facts,
- unintentional misuse of accounting principles.

Both aggressive accounting and creative accounting are the consequences of using different accounting practices selected by the accountant.

¹⁸ Hołda A., Rodzaje i podstawowe techniki oszustw księgowych [in:] M. Kutera, A. Hołda, S. Surdykowska, Oszustwa księgowe teoria i praktyka, Difin, Warszawa 2006

¹⁹ Cf. Mączyńska E. Nieuczciwych metod księgowych nie powinno się określać kreatywnie, Rzeczpospolita 9.08.2002;

²⁰ Cf. Gut P. op.cit. p.11

²¹ Cf. International Standard on Auditing 240: The Auditor's Responsibilities Relating to Fraud in an Audit of Financial Statements, paragraph 11;

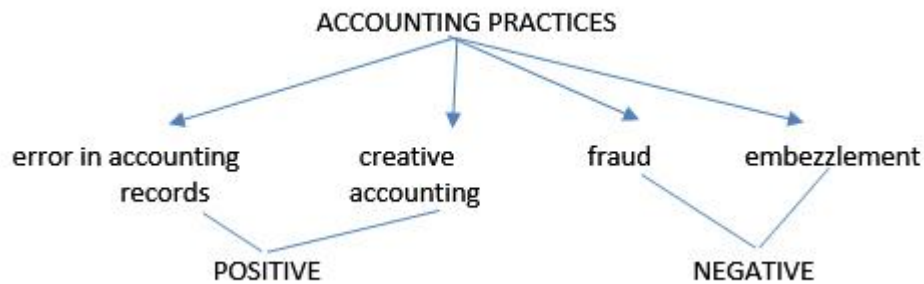


Figure 2: Classification of accounting practices

Source: E. Maćkowiak, *Rachunkowość kreatywna a rachunkowość agresywna – próba poprawy wyniku finansowego jednostki gospodarczej*, Zeszyty Naukowe Uniwersytetu Szczecińskiego, Szczecin 2015, p. 147;

Accounting fraud is frequently referred to as “white collar crime”, because crime is committed without the use of violence aimed to achieve financial gain.

White collar crime includes:

- a single violation of law – committed for personal gain (tax evasion),
- professional crime and a violation of business law – committed by an organization’s employees against this organization (embezzlement, bribery),
- organizational crime and violations of business law in order to protect the interests of an enterprise – they are committed by entrepreneurs to protect their interests²².

4. CONCLUSION

The development of behavioral accounting gave rise to the emergence of two types of accounting: creative accounting and aggressive accounting. They are both based on an individual person’s activity, which, on the one hand, can be perceived as remaining within the bounds of the norms stipulated by the provisions of the accounting law, and on the other hand does not comply with the law. However, regardless of whether this activity is consistent with the accounting canon, or whether it is a practice constituting white collar crime, the goal is the same. It is to create the best possible picture – from the perspective of an entity preparing the financial statements – of the financial and material situation of a given economic entity. The analysis whether and to what extent the use of aggressive accounting leads to obscuring the actual picture of an econom.

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²² Cf. Bela A., Bolesławska E. Oszustwa finansowe – podręcznik audytora, InfoAudit, Warszawa 2005, p.21;

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CORPORATE GOVERNANCE AND SOCIAL/SOCIETAL RESPONSIBILITY OF ORGANIZATIONS IN PUBLIC SECTOR

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ABSTRACT

For several years, improving corporate governance has become a requirement in developed countries following the financial scandals that affected several large companies. Admittedly, corporate governance has not attracted the interest of developed countries alone. In Morocco, corporate governance has emerged in recent years. Far from being unanimous among business leaders, the idea of social and corporate responsibility of organizations is not a new idea. As a result, Human Resources Management, attentive to the changes introduced by the RSO, should emerge in the coming years. The objective of this article will be to show, on the one hand, that these new imperatives, which are part of a socially responsible approach, will lead Human Resources Management to be more listen to the civil society and consequently to propose innovative practices. On the other hand, we aim to show the interest of the RSO for the governance of the company. We seek to find the relationship that links the concept of RSO to the notion of governance "new firm" and that's the goal of the realization of this work.

Keywords: *Corporate Governance, Corporate Social Responsibility (CSR), Globalization, Human Resources Management (HRM), Public Sector*

1. INTRODUCTION

Corporate governance presents several concerns that have really arisen in recent decades following a series of scandals that have affected several large global companies. From the observation of the origin of the reflection on corporate governance in the United States, we find that this problem reflects dissatisfaction with the performance of US companies and an inability of governance systems to control the behavior of leaders. Since then, several empirical works dealing with the theme of governance in the broad field of management sciences have emerged. The issue of corporate governance is not in the interest of developed countries alone. In Morocco, corporate governance came into being because of a willingness approved by the various stakeholders, both public and private, to make this topic a real driver for the promotion of investment. In the context of our article, we will first focus on the evolution of the notion of Corporate Social Responsibility. Then we will study the CSR practices applied within the Companies. Finally, we will try to show the relationship between corporate governance and CSR that puts stakeholders at the heart of governance.

2. GENESIS AND DEVELOPMENT OF SR

Corporate Social Responsibility (CSR) is part of a long history that must be understood in order to grasp its consideration as a problem and insert it at the managerial level. The development of this concept was during the early ages of industrial capitalism in the United States. The first who began to question the relationship between business and morality are the business leaders.

At the end of the 19th century, the concept of CSR was part of the speeches of American businessmen, which led to the birth of a doctrine of the Social Responsibility of American Businessmen in the 1920s. However, the first theoretical formalization of this notion was made thanks to Howard Bowen, whose famous book "Social Responsibilities of the Businessman" is quoted. Several works were subsequently carried out, in particular those of Heald (1961, 1970) which made it possible to establish an integral genealogy of CSR and thus the publications of Pasquero ((2005), In Turcotte, M. F. B. et Salmon, A. p. 80-111). The purpose of this section is to clarify, on the one hand, the links that can exist between the RSO and sustainable development, and on the one hand, to define this notion through the different works of the authors. Then, we will accompany the evolution of this concept in five continents: America, Asia, Europe, Africa and Oceania. Finally, we will present at the end of this section a summary table of the different definitions given to SR by the authors.

2.1. Sustainable Development and Corporate Social Responsibility

For a long time, the exploration of a balance between environmental protection and economic and social development has been the subject of several reflections. Since the 1950s, the International Union for the Conservation of Nature (IUCN) has announced its first documentation on the state of the environment around the world. It was a report aimed at reconciling economics and ecology. In 1972, the Massachusetts Institute of Technology¹, in collaboration with various researchers in Massachusetts, conducted a report that "in a world with limited natural resources, an economic model based on unlimited growth will lead to a collapse of societies"(Meadows, DH, DI Meadows, L. Randors, and W. Behrens, (1972)p. 205). In the same year, a conference on the human environment was conducted by the United Nations, examining the links between environment and development. From this conference, the United Nations Environment Program (UNEP) was created, in addition to the United Nations Development Program (UNDP). In the eighties, society witnessed the acceleration of poverty, as well as pollution, which required the solidarity of man, society, and the environment. To address such problems, the World Commission on Environment and Development (WCED), in 1987, for the first time, established a report entitled "Our Future for All" at the end of "sustainable development", which translated into French as "sustainable development". Since this term emerged in 1987, several institutions have asked for a definition. Nevertheless, the most striking definition remains that of the Brundtland Commission, which identified sustainable development as "development that strives to meet the needs of the present without compromising the ability of future generations to meet theirs". In other words, sustainable development must have long-term goals and must not be short-term. The notion of sustainability could be presented according to the principle of triple bottom line called in English "The Triple bottom line" or triple notion, economic, social and environmental. In addition, we must ensure economic and social growth while respecting the environment in which we operate. Sustainable development touches on three main pillars that we cite: society, the economy and the environment. In the first place, the social dimension aims to satisfy human needs, by promoting human rights (health, education, housing, employment, etc.) and by guaranteeing social equity towards respect for human dignity. Secondly, the economic dimension aims to develop growth and economic efficiency. The latter is achieved by maintaining sufficient economic revenues while minimizing risks and ensuring customer satisfaction. Finally, there is the environmental dimension which focuses on preserving and improving the environment and natural resources over the long term by preventing environmental impacts and minimizing risks.

¹ The Massachusetts Institute of Technology (MIT), the Massachusetts Institute of Technology, was founded in 1861 by William Barton Rogers in Cambridge. It is a research institute and an American university specialized in the fields of science and technology.

Therefore, the challenge for development actors is how they can balance the achievement of these different goals (Adams W. M. (2001)). In the late eighties, in dealing with such a problem, the Brundtland Report allowed for the organization of many summits such as the Earth Summit in Rio in 1992 which developed a program of action at the local, national level and international, called “Agenda 21” (Vivien FD (2003), p.1-21). Other conferences were organized around the concept of sustainable development, for example the Johannesburg Summit in 2002, to which different populations were able to give their constructive opinions with the aim of finding the best way to follow for the respect of the principles of sustainable development and the culmination of concrete results. With this in mind, the Johannesburg Summit defined for the first time the concept of CSR, “as a variation for the company of the concepts of sustainable development, which integrate the three environmental, social and economic pillars”. This relationship defined by this summit between sustainable development and CSR has been a reference for definitions from several countries and organizations, such as the French Ministry of Ecology and Sustainable Development, which states that “the concept of social responsibility is directly linked to the notion of sustainable development, of which it is the declination for companies”. Still, the World Business Council for Sustainable Development² or “The World Business Council for Sustainable Development (WBCSD)” links CSR to sustainable development. According to the (WBCSD), CSR can be defined as “the continuous commitment of companies to act ethically and to contribute to economic development, while improving the quality of life of its employees, their families, the local community and society as a whole”. In the next chapter, we will try to position CSR in the Moroccan context through the presentation of the main levers and obstacles that may hinder the application of social and societal approaches by organizations in the Moroccan territory.

3. THE CSR FRAMEWORK IN MOROCCO

The phenomenon of globalization poses a new order to Moroccan companies marked by the opening of markets and the appearance of new international competitors. Among the differentiating factors is technological and organizational innovation. In this context, several opportunities are opening up to encourage the integration of CSR into the managerial practices of companies in Morocco. In our country, the application of CSR is in full swing with levers and obstacles that we will see right after.

3.1. The levers of CSR in Morocco

Today, organizations are responsible for the impact of their decisions and activities on society and the environment. This notion can be defined as “the contribution of organizations to sustainable development.” It translates into the organization’s willingness to take responsibility for the impacts of its decisions and activities on the society and the environment and to report on it. “Across the world, organizations and their stakeholders are increasingly aware of the need and value of socially responsible behavior. In Morocco, corporate social responsibility has been introduced by subsidiaries of multinational companies that are involved in such processes and by their local partners. Legal and institutional reforms favored its development as: the National Initiative for Human Development, the reform of the legislative framework and the standardization movement.

²The World Business Council for Sustainable Development (WBCSD) was established in 1995 by Stephan Schmidheiny after the RIO Summit. This creation was the result of the merger of the Business Council for Sustainable Development and the World Industry Council for the Environment. Based in Geneva, the WBCSD brings together 190 international companies united by a common commitment to sustainable development through the three pillars of economic growth, ecological balance and social progress.

The National Initiative for Human Development (INDH) launched by King Mohammed VI in May 2005 aims to design a multi-year national program to integrate social objectives into investment decisions. In this context, the royal speech of his majesty is a vector of incentive and encouragement to private initiatives: “the social responsibility of investors has as a condition and term the corporate social responsibility. In this regard, We follow with interest and satisfaction the action of Moroccan companies that have voluntarily embarked on this path “. In truth, the NHRI offers economic actors a frame of reference and financial resources to stimulate a social dynamic in the emerging economic context. On the one hand, a new Labor Code was published in 2004 that came to strengthen the connection to human rights and international labor conventions. Among the points reinforced in this new labor code is consultation. This new labor code suggests instruments to adapt certain measures to sectorial and organizational specificities such as internal tools such as the works council, the health and safety committee, the company agreement and the branch collective agreement. On the other hand, Morocco is experiencing a normalizing movement in full emergence. The Ministry of Industry Trade and the Upgrading of the Economy confirms a great market demand for standardization. As a result, several Moroccan standards are established, particularly concerning the management of social aspects in the company through standard NM00.5.600 (Management System of Social Aspects in the Company). This standard takes into account local regulations and the work code, so it is compatible with other management systems (quality, environment and security). Likewise, it specifies general guidelines for setting up and managing a social audit system. It should also be noted that Morocco is a member of the Francophone Commission for the preparation of the ISO 26000 (International Organization for Standardization) standard on social responsibility. Through this movement of normalization, we see that Morocco opts for a certain integration of social issues in the management systems and proves a desire to establish the normative bases to go much further from the legal obligations and participates in the obtaining of a climate of trust between the different socio-economic actors.

3.2. Barriers to CSR in Morocco

Several obstacles stop the implementation of the CSR policy in Morocco in management systems within companies despite the various efforts to promote it. This is due to a number of factors, mainly the qualification of the staff, and the lack of information and the lack of financial resources. The sources of these factors can be as follows:

- The traditional paternalistic culture or so-called “paternalistic entrepreneurship” culture that reduces a firm’s economic performance to lower costs and places authority at the center of employer-employee relations. It reduces the degree of pressure from stakeholders including the unions and therefore reduces opportunities for social consultation. Of course, the trade union movement in Morocco has for many years been ignored, hence the difficulty of setting up a culture of social dialogue characterized by negotiation and consultation.
- The industrial fabric in Morocco is experiencing financial, structural and human fragility because of the predominance of small and medium-sized enterprises (SMEs), which hampers the implementation of a CSR policy.
- The lack of qualification of employees and senior executives hinders the Moroccan authorities to apply a demarcation of CSR, which makes it less enthusiastic. “Academic or vocational training remains largely dominated by disciplines that primarily encourage competitiveness and put the integration of social aspects in the background.”

However, CSR can be considered by some organizations as an instrument of governance. This has pushed some companies to engage in social and societal issues and adopt certain practices that make them appear as “Top Performers”.

4. GOVERNANCE AND CSR IN MOROCCO: PRACTICES AND REALITIES

In this title, we will explore the practices of RSO in the Moroccan context and we will present the results of a study conducted by the VIGEO Eiris³ firm. On the other time, we will try to understand the relationship between corporate governance and the RSO.

4.1. CSR practices in Morocco

The concept of Corporate Social Responsibility (CSR), which was introduced in Morocco in 2006, with the adoption by the CGEM “General Confederation of Enterprises of Morocco” of the CSR Charter, is still in its initial phase, since the number of companies with CSR labeling is barely 55 today. “However, this observation is not enough to have a clear idea about the commitment of Moroccan companies in this regard, since not being labeled CSR does not necessarily mean that we are not socially engaged, according to In this respect, it is argued that any company that adheres to the CGEM adheres to its CSR charter “. The CSR Label referential constitutes the CGEM’s social responsibility charter and was adopted on December 14, 2006 by the National Council of the company. “This charter is structured in 9 areas of commitment defining each of the objectives of strategy and managerial conduct accurate and measurable. These objectives are in line with the guidelines and guidelines of the ISO 26000. They fully meet the national legislation and are strictly in accordance with the principles and objectives set forth for business by international public standards, fundamental conventions and recommendations of international institutions, the UN, ILO, OECD “.

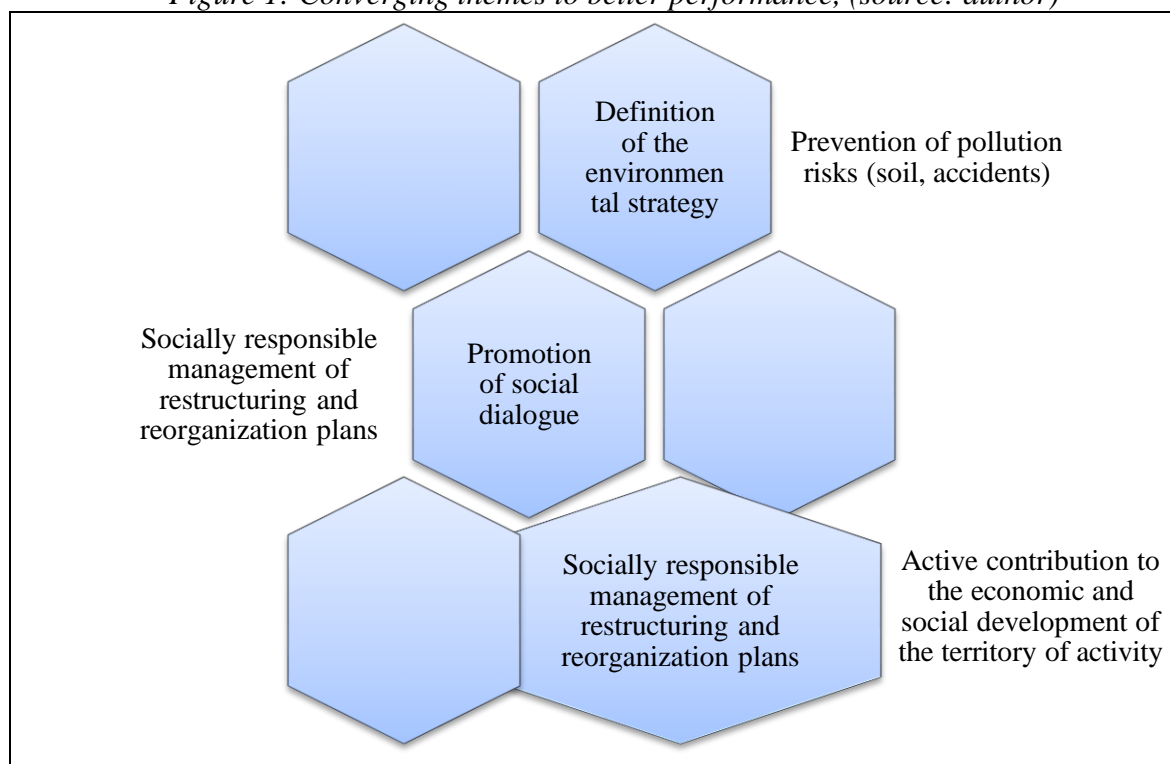
The 9 areas of commitment of the CSR Charter:

1. Respect human rights.
2. Continuously improve employment and working conditions and industrial relations.
3. Protect the environment.
4. Prevent corruption.
5. Respect the rules of healthy competition.
6. Strengthen the transparency of corporate governance.
7. Respect the interests of customers and consumers.
8. Promote the social responsibility of suppliers and subcontractors.
9. Develop societal commitment.

The rating agency VIGEO has just given the title of “Top Performers in social responsibility / societal” to fifteen companies listed in Morocco according to the following themes:

Figure following on the next page

³ Vigeo Eiris is an independent international ESG research and services agency (Environment, Social and Governance) for investors and private and public organizations. It assesses the level of integration of sustainability factors into the strategy and operations of organizations, and reviews the risks for decision support to investors and businesses alike.

Figure 1: Converging themes to better performance, (source: author)

However, the study conducted by Vigeo noted that Nine of these fifteen companies belonged to the Top Performers 2015 (BMCE Bank, BMCI, Cosumar, Ittissalat Al Maghrib (Maroc Telecom), Lafarge-Holcim Morocco, Lydec, Managem, OCP and SMI), four are new in this list (Attijariwafa Bank, Oulmes, Taqa Morocco and Wafa Assurance), and two are reinstated (Centrale Danone and Lesieur Cristal). We present below the fifteen successful companies in social and societal matters according to this rating agency.

Table following on the next page

Table 1: Winners of the 2017 CSR Top Performers (vigeo-eiris, 2017)

Top Performers Morocco 2017	Performance criteria
ATTIJARIWafa BANK	Customer information; No discrimination;
BMCE BANK	Customer information; No discrimination; Respect for fundamental human rights and prevention of violations of these rights; Definition of the environmental strategy; Provision of green products and services; Control of energy consumption and reduction of polluting emissions; Company contributions to causes of general interest; Promotion of individual career choices and employability;
BMCI	Customer information; Responsible direction of contracts; Respect for fundamental human rights and prevention of violations of these rights; No discrimination; Provision of green products and services; Taking into account the societal impact of products; Services developed by the company; Company contributions to causes of general interest; Balance of powers and effectiveness of the CA / Audit and control mechanisms; Promotion of individual career choices and employability;
CENTRALE DANONE	Product safety
COSUMAR	Consideration of environmental factors in the supply chain; Control of impacts on water; Control of energy consumption and reduction of polluting emissions;
ITISSALAT AL-MAGHRIB	Responsible direction of contracts; Prevention of corruption; Respect for fundamental human rights and prevention of violations of these rights; Control of energy consumption and reduction of polluting emissions; Improvement of health and safety conditions;
LAFARGEHOLCIM MOROCCO	Product safety; Taking into account social factors in the supply chain; Respect for freedom of association and the right to collective bargaining; Promotion of social dialogue;
LESIEUR CRISTAL	Product safety;
LYDEC	No discrimination; Company contributions to causes of general interest; Improvement of health and safety conditions;
MANAGEM	Taking into account social factors in the supply chain; Prevention of corruption; Respect for freedom of association and the right to collective bargaining; Definition of the environmental strategy; Taking into account the risks of pollution (soils, accidents); Prevention of risks of damage to biodiversity / control of local pollution risks; Commitment to the economic and social development of the territory of activity; Respect for shareholder rights Management responsible for restructuring; Promotion of individual career choices and employability; Improvement of health and safety conditions;
OCP	Taking into account the risks of pollution (soils, accidents); Commitment to the economic and social development of the territory of activity;
OULMES	Sustainable cooperation with suppliers;
SMI	Taking into account social factors in the supply chain; Respect for freedom of association and the right to collective bargaining; Definition of the environmental strategy; Taking into account the risks of pollution (soils, accidents); Prevention of risks of damage to biodiversity / control of local pollution levels; Commitment to the economic and social development of the territory of activity; Respect for shareholder rights Promotion of social dialogue; Controlled management of restructuring;
TAQA MOROCCO	Prevention of pollution risks (soils, accidents); Respect for shareholder rights Promotion of social dialogue;
Wafa ASSURANCE	Responsible direction of contracts;

The survey pushes us to emphasize a progressive awareness of public authorities and companies. However, the results reveal a very weak knowledge in general about CSR and the Global Compact, as well as confusion between social responsibility and legal responsibility. In conclusion, we can say that the main priorities of CSR, according to Moroccan companies, are primarily to promote good governance, the elimination of corruption and compliance with legislation, followed by the improvement of the human resources function and fiscal responsibility. However, CSR can be perceived as an instrument of governance according to some theoreticians and practitioners, which is what we will see in the following paragraph.

4.2. CSR as a governance instrument

CSR can be considered as a constituent element of appropriate corporate governance as it reflects a corporate vision that incorporates the views of the various stakeholders in the broad sense of Freeman and Reed (1983): Stakeholders are the partners who affect the business and/or are affected by it ". CSR is used by firms as an instrument to remedy the failures of shareholder governance, as is the case with French telecommunications operators. CSR is committed to achieving two distinct objectives: it is used, on the one hand, to reinforce the loyalty of employees, to enrich their resources productive, and partly solve the problems related to the inalienable nature of certain assets, primarily human. On the other hand, it contributes to ensuring the sustainability of the relationships with the network of subcontractors. CSR is this time considered as a competitive instrument for companies. "It implies a radical change of mentality for the companies which must take care to make evolve their system of governance towards more transparency in particular, to ensure decent working conditions to their employees as well as the social protection, to respect the environment in the where they operate, to respect the rights of consumers, suppliers, local communities, etc."

5. CONCLUSION

In conclusion, it should be noted that our main objective through this article was to highlight the practice of CSR in Moroccan companies. The Moroccan company is still in coherence with its internal environment while privileging an internal CSR. We can't realize external legitimacy without realizing it internally. Yet we must have companies that integrate the CSR approach as a modern management mode capable of meeting the needs of stakeholders in a context of global crisis, which generates strong social and economic pressure. The awareness of the importance of CSR within the Moroccan company is so necessary; it requires a managerial commitment that generally leads to the promotion of a culture of Sustainable Development. Several obstacles were noted during the implementation of CSR, which leads us to see a research track to explore in future work.

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AN EMPIRICAL ANALYSIS OF THE PUBLIC DEBT RELEVANCE TO THE ECONOMIC GROWTH OF THE USA

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ABSTRACT

The aim of this paper is to assess, through empirical analysis, the historical significance of the public debt to the economic growth of the USA. In order to understand the relationship we examine the historical data from 1850 – 2010, as well as the quarterly data from the period 1966 – 2016. We used Johansen and Engle-Granger Co-integration tests, as well as Granger causality tests and Autoregressive Distributed Lag (ARDL) analysis. The empirical evidence of a statistically significant negative long-term relationship between public debt and GDP was not found. It is concluded that there is a uni-variate relationship GDP towards the public debt, which is caused by the constant rise in public debt.

Keywords: *public debt, ARDL analysis, economic growth, the USA, Engle-Granger co-integration tests*

1. INTRODUCTION

The aim of this paper is to empirically assess the historical significance of the public debt to the economic growth in the USA. In order to understand the relationship we examine the historical data from 1850 – 2010, as well as the quarterly data from the period 1966 – 2016. We employed Johansen and Engle-Granger co-integration tests, as well as Granger causality tests and Autoregressive Distributed Lag (ARDL) analysis.

2. METHODOLOGY

A two-step empirical approach to gain a better understanding of the public debt dynamics is considered. The first step is to consider the US public debt-to-GDP ratio and their GDP per capita in the period 1850 – 2010. The data for the public debt-to-GDP ratio was obtained from the database originally constructed by (Abbas, 2010), while the data for the GDP per capita was obtained from (The Maddison Project, 2013). Before conducting further econometric analysis we confirm that there is no presence of a unit root based upon the augmented version of the test initially proposed by (Dickey and Fuller, 1979), the test is further on standardly abbreviated as ADF. Upon establishing whether there is a unit root present, further analysis is conducted based upon the level in which the variables are stationary. If they are both I(1) as suggested by the plotted figures we will consider the co-integration test initially proposed by (Johansen, 1991). In order to confirm any finding the co-integration test proposed by (Engle and Granger, 1987) was made as well. Aside from the co-integration tests, Pairwise Granger causality tests, initially introduced by (Granger, 1969), were considered, with the appropriate lag length suggested by the information criterions respectably suggested by (Schwarz, 1978) and (Akaike, 1974). The co-integration test is a useful analytical tool, which helps to determine whether two non-

stationary variables have a long-run relationship. The Pairwise Granger causality tests are conducted by running bivariate regression against the following equations in the case of this paper:

$$GDP_t = \alpha_0 + \alpha_1 GDP_{t-1} + \dots + \alpha_l GDP_n + \beta_1 DEBT_{t-1} + \dots + \beta_l DEBT_n + \dots + \epsilon_t \quad (1.1)$$

$$DEBT_t = \alpha_0 + \alpha_1 DEBT_{t-1} + \dots + \alpha_l DEBT_n + \beta_1 GDP_{t-1} + \dots + \beta_l GDP_n + \dots + \epsilon_t \quad (1.2)$$

Where

GDP	natural logarithm of GDP per capita
DEBT	public debt-to-GDP ratio
α_0	Constant
ϵ_{it}	Error term
$\alpha_{1..l}, \beta_{1..l}$	Coefficients

From these regressions performed with the number of lags from $t-1$ to n , where n is the final number of lags suggested by the information criterions, the Wald test for the significance of the joint hypothesis is considered:

$$\beta_1 = \beta_2 = \dots = \beta_l = 0 \quad (1.3)$$

As indicated in Granger (1969) methodology, rejection of the null hypothesis signifies that there is a statistically significant causal relationship between the variables. As a final sensitivity test in case on miss-specification we conduct an autoregressive distributed lag (ARDL) model, introduced by Pesaran and Shin (1999). The model is as follows:

$$GDP_t = \alpha_0 + \sum_{i=1}^p \beta_i GDP_{t-i} + \sum_{j=0}^q \gamma_j DEBT_{t-j} + \epsilon_t \quad (2)$$

Where

GDP	natural logarithm of GDP per capita
DEBT	public debt-to-GDP ratio
α_0	Constant
ϵ_{it}	Error term
$\beta_i \gamma_j$	Coefficients

The value of such an analysis is that it may be used regardless of the fact whether the variable is $I(0)$ or $I(1)$, or even if both are $I(1)$. The second relevance of this model is that we may specify different numbers (p, q) of lags of the dependent and independent variables. The Bounds test, suggested by Pesaran Shin and Smith (2001), allows us to understand whether there is a long-run relationship between the variables. The specification is that the GDP per capita is the dependent variable, while the public debt-to-GDP ratio is the independent variable. The number of lags will be chosen based upon the Akaike information criterion. In order to confirm that the model is adequate we conduct several diagnostic tests. The second approach considers quarterly data from 1966 – 2016, in which this paper aims to determine what variables have a statistically significant effect on the public debt-to-GDP ratio. The data was extracted from Federal Reserve Economic Data. This second methodological approach will display whether there are any differences between the relationship of public debt and economic growth in a shorter time frame. By using quarterly data, the number of observations is increased to nearly 200.

Quarterly data was not used for the 1850 – 2010 time period due to limited data sources. All the calculations were conducted using the program E-Views Business 9.5.

3. RESULTS

Based upon the results of the ADF test in Table 1, it is clearly possible to confirm that the variables are stationary in their first difference. We select the lag length based upon the Schwarz info criterion and 1 lag is identified as optimal. Although there can be a case made that the log of GDP per capita is trend stationary, a far more appropriate conclusion would be to approach it as a I(1) variable, as the specification with trend does not reject the null hypothesis of a unit root presence at the 1% value and any regression results may be spurious. This is especially important taking into account the results with constant where the p value is such that we firmly fail to reject the null hypothesis. If this results in any irregularities it will be made clear by the co-integration tests. Therefore both variables I(1) were considered in conducting further tests, starting with the Johansen test for co-integration in Table 2.

Table 1: ADF unit root test for 1850 – 2010

Variable	Test statistic value with constant	Test statistic value with constant and linear trend	Conclusion
GDP per capita	-0.247 (0.9285)	-3.974** (0.0114)	I(1)
In first difference	-9.759*** (0.0000)	-9.733*** (0.0000)	
Public debt-to-GDP ratio	-1.345 (0.6079)	-2.554 (0.302)	I(1)
In first difference	-7.027*** (0.0000)	-7.023*** (0.0000)	

*Note: values in the parenthesis represent the p value. * and ** indicate statistical significance at the respective 0.05 and 0.01 levels of significance.*

Table 2: Johansen co-integration test

Hypothesized number of co-integrating equations	Eigenvalue	Trace statistic	0.05 Critical Value	p value
None	0.0445	7.1294	15.495	0.5626
At most 1	0.0001	0.0213	2.831	0.8839

*Note: * and ** indicate statistical significance at the respective 0.05 and 0.01 levels of significance.*

The test results fail to find co-integration, as the p value of the tested statistic fails to reject both that the hypothesized number of co-integrating equations is 0 and that it is at most 1. The number of lags used in the Engle-Granger co-integration test was 1 for when GDP per capita was the dependent variable, while the lag length was 2 when the dependent variable was the public debt-to-GDP ratio. The lag length was determined by the Akaike information criterion.

Table 3: Engle-Granger co-integration test 1850 - 2010

Dependent variable	tau-statistic	z-statistic
Log of GDP per capita	-2.5611 (0.2582)	-12.747 (0.2147)
Public debt-to-GDP ratio	-2.631 (0.2305)	-16.2597 (0.1070)

*Note: values in the parenthesis represent the p value. * and ** indicate statistical significance at the respective 0.05 and 0.01 levels of significance.*

The null hypothesis was not rejected (the log of GDP per capita and the public debt-to-GDP ratio are not co-integrated). To understand in which direction the relation between GDP per capita and the public debt-to-GDP ratio is, we employ the Granger pairwise causality test.

Table 4: Granger causality test 1850 - 2010

Null hypothesis:	F-statistic value	Number of lags
GDP does not Granger cause DEBT	20.172*** (1.E-05)	1
GDP does not Granger cause DEBT	10.2996*** (6.E-05)	2
GDP does not Granger cause DEBT	7.217*** (0.0001)	3
GDP does not Granger cause DEBT	5.4095*** (0.0004)	4
DEBT does not Granger cause GDP	3.892* (0.0503)	1
DEBT does not Granger cause GDP	3.369** (0.037)	2
DEBT does not Granger cause GDP	2.207* (0.0897)	3
DEBT does not Granger cause GDP	1.675 (0.1588)	4

*Note: values in the parenthesis represent the p value. * and ** indicate statistical significance at the respective 0.05 and 0.01 levels of significance.*

The results of the Granger causality test might suggest a strong Granger causality relationship between GDP causing the public debt-to-GDP ratio, as the constant increase of GDP in recent years was constantly accompanied with the rise of the public debt-to-GDP ratio. The results with higher lag lengths were included as the Akaike and Schwarz (1974) information criterion respectably suggested that the ideal lag length would be 2 lags and 1 lag. There is statistical significance in conducting the test at a higher lag length to notice whether the trend in the results persists.

Based upon the higher lag length results the Granger causality test seems to incline that there is no Granger causality, when examining results at the 5% significance level, between the public debt-to-GDP ratio and GDP per capita. ARDL tests were conducted, and based upon the Akaike information criterion a (2,0) model was selected. A constant and a trend are included in the specification.

Table 5: ARDL model basic statistics

Variable	Coefficient	Std. Error	t-statistic	p value
LGDP(-1)	1.170802**	0.076202	15.36446	0.0000
LGDP(-2)	-0.303754**	0.076294	-3.981334	0.0001
DEBT	-0.000235	0.000205	-1.146389	0.2534
C	0.996299**	0.255687	3.89656	0.0001
Trend	0.002523**	0.000627	4.027163	0.0001
R-squared	0.996878	Mean dependent var	8.895336	
Adjusted R-squared	0.996797	S.D dependent var	0.840746	
S.E of regression	0.04758	Akaike info criterion	-3.221887	
Sum squared resid	0.348627	Schwarz criterion	-3.12538	
Log likelihood	261.14	Hannan-Quinn criterion	-3.182696	
F-statistic	12295.01	Durbin-Watson stat	2.02966	
Prob(F-statistic)	0.0000			

*Note: * and ** indicate statistical significance at the respective 0.05 and 0.01 levels of significance.*

Based upon the value of the F-statistic the model is statistically significant, the R-squared and adjusted R-squared signify that the explanatory value of the model is higher than 99% and the value of the Durbin-Watson statistic implies that there is no presence of autocorrelation. To test a long-term relationship between the public debt-to-GDP ratio and GDP per capita, the Bounds test was employed (Table 6).

Table following on the next page

Table 6: Bounds test

Test statistic	Value	k
F-statistic	5.453236**	1
Critical Value Bounds		
Significance	I0 Bound	I1 Bound
10%	4.05	4.49
5%	4.68	5.15
2.5%	5.3	5.83
1%	6.1	6.73

Note: *, **, *** and **** indicate statistical significance at the respective 0.1, 0.05, 0.025 and 0.01 levels of significance.

This paper considers both variables to be I(1) and therefore based upon the value of the F-statistic it was determined that the null hypothesis of no long-run relationship at the 5% level of significance can be rejected. Although the Bounds test suggests that there is a long-run relationship, when estimating the long-run relationship we find that the public debt-to-GDP ratio has a barely registrable and more importantly, statistically insignificant effect on the GDP per capita.

Table 7: Co-integrating equation and long-run relationship

Co-integrating equation = LGDP - (-0.0018*DEBT + 0.019*Trend)			
	Long Run Coefficients		
Variable	Coefficient	Standard Error	t-statistic
DEBT	-0.001769 (0.2855)	0.00165	0.2855
Trend	0.018977** (0.0000)	0.00095	19.9763

Note: * and ** indicate statistical significance at the respective 0.05 and 0.01 levels of significance.

Based upon viewing the US debt from 1850 to 2010, a significant link going from the public debt-to-GDP ratio towards GDP per capita is not found. The Granger causality test was accurate as it indicated that the relationship is unidirectional going from GDP per capita towards the public debt-to-GDP ratio. These results are conclusive with the findings of Cherif and Hasanov (2012), as well as their primary recommendation that the safest way to combat excessive debt is to implement policies that will increase economic growth. It also seems to, in the case of the USA; confirm the hypothesis of Dar and Amirkhalkhali (2014), that public debt has a statistically insignificant impact on economic growth. Before conducting further quantitative analysis, the stationarity of the variables is confirmed using the ADF test. The number of lags was selected using the Schwarz information criterion, testing up to 12 lags. The ADF test was repeated until it rejected the null hypothesis at the 5% significance level (Table 8). Before performing the tests, log transformations are applied to GDP per capita and private domestic investment.

Table 8: ADF unit root test for 1966 – 2016 variables

Variable	Test statistic value with constant	Test statistic value with constant and linear trend	Conclusion
Pdebt	0.057 (0.9616)	-2.2637 (0.4513)	I(1)
In the first difference	-2.8894* (0.0487)	-3.9715* (0.0111)	
GDP	-1.444 (0.5601)	-1.801 (0.7006)	I(1)
In the first difference	-10.087** (0.0000)	-10.179** (0.0000)	
Loans	-4.539** (0.0002)	-4.60001** (0.0013)	I(0)
Corporate profit	-0.053 (0.9516)	-2.089 (0.5484)	I(1)
In the first difference	-15.092** (0.0000)	-15.157** (0.0000)	
Dom Invest	-0.915 (0.7821)	-2.806 (0.197)	I(1)
In the first difference	-10.871** (0.0000)	-10.848** (0.0000)	

Note: * and ** indicate statistical significance at the respective 0.05 and 0.01 levels of significance.

The majority of the variables are stationary in the first difference, meaning that co-integration tests may once again be considered. By using pairwise Granger causality tests, we attempt to see whether there is any difference from the 1850 – 2010 to the 1966 – 2016 periods in regards to the direction of the relationship found between economic growth and the public debt-to-GDP ratio. The Schwarz information criterion suggests that 3 lags are ideal, while the Akaike information criterion suggests 4 lags as an ideal lag length.

Table 9: Granger causality test 1966 – 2016

Null hypothesis:	F-statistic value	Number of lags
GDP does not Granger cause DEBT	1.289 (0.2794)	3
GDP does not Granger cause DEBT	3.011* (0.0195)	4
GDP does not Granger cause DEBT	2.3595* (0.0419)	5
DEBT does not Granger cause GDP	2.105 (0.101)	3
DEBT does not Granger cause GDP	1.624 (0.17)	4
DEBT does not Granger cause GDP	1.17 (0.3256)	5

Note: values in the parenthesis represent the p value. * and ** indicate statistical significance at the respective 0.05 and 0.01 levels of significance.

At the lag length suggested by the Schwarz information criterion we find no evidence of a statistically significant relationship. At the lag length suggested by the Akaike information criterion, as well as at higher lag lengths, we find a statistically significant relationship at the 5% significance level going from economic growth towards public debt. We found no evidence of a reverse relationship, which is conclusive with our findings from the studied period of 1850 – 2010. We once again examine whether there is any evidence of co-integration between the public debt-to-GDP ratio and the log of GDP per capita, as both of the variables are $I(1)$. In this test we use the level version of the variables. The lag length used in the test is 4, based upon the recommendation of the majority of the standardly used information criteria.

Table 10: Engle-Granger co-integration test 1966 – 2016

Dependent variable	tau-statistic	z-statistic
Log of GDP per capita	-2.2105 (0.4205)	-9.4564 (0.3886)
Public debt-to-GDP ratio	-1.6714 (0.6916)	-9.346 (0.3958)

*Note: values in the parenthesis represent the p value. * and ** indicate statistical significance at the respective 0.05 and 0.01 levels of significance.*

Based upon the results of the Engle-Granger co-integration test, we confirm that the relationship between economic growth and the public debt from 1966 – 2016 has many similar statistical properties in comparison to their relationship in the period 1850 – 2010. There is no evidence of co-integration in any of the observed periods, which is conclusive with the finding of Lainà (2011), that neither economic growth nor the public debt is stationary, yet that these variables are not co-integrated.

4. CONCLUSION

No conclusive evidence of long term causality going from the public debt towards economic growth was found. Using Johansen and Engle-Granger co-integration tests, we fail to find any evidence of a long-term relationship. The evidence of a long-run relationship from GDP towards the public debt-to-GDP ratio using Granger causality tests is found. This empirical evidence is conclusive with the theoretical hypothesis that public debt growth in the US is used to avoid unpopular austerity measures. These findings are confirmed both with the ARDL analysis and Granger Causality tests in the period 1850 – 2010, as well as using Granger Causality Tests and a VAR framework in the period 1966 – 2016. In both of these periods, no evidence of co-integration between the public debt and economic growth was found.

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ROLLING OUT OPERATIONS MANAGEMENT BY SCRUM: THE CASE OF CROATIAN IT COMPANY

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ABSTRACT

SCRUM is agile, a lightweight framework for managing and controlling teams working on complex product development in a rapidly changing environment. Software development community noticed a "long" history of successful supporting agile development projects. Although the SCRUM framework had a primary task to improve software engineering processes, it seems that it can be used to improve the work output of a change-driven team in any business sector. This paper is a case study of practice in one Croatian company, which already successfully uses agile principles for software development, applying SCRUM principles to daily operations in their Information Technology (IT) service desk. IT service desk was considered as a main IT support capability in the organization on the operational level of IT service management (ITSM), which refers to the entirety of activities that are performed by the organization to design, plan, deliver, operate and control IT services offered to customers. Describing specific adaptation of basic SCRUM elements to daily IT service management requirements, the paper explores the impact of a used operational framework for team performance. Specifically, whether it is applicable for that purpose use of Software Development Performance Index (SDPI index) across the key dimensions of Quality, Productivity, Predictability and Responsiveness. The case study tries to fill the lack of scientific support to growing numbers of agile methods application examples in modern organizations outside the software engineering arena.

Keywords: *Agile project management, SCRUM, IT service desk, Operations management, Performance measures*

1. INTRODUCTION

Traditional project management, considered as a combination of methods, techniques, procedures, rules, templates and best practices used to project activities meet the project requirements, suffers from several disadvantages (Cervone, 2011, pp. 18-22). The main one concerns the fact that requirements definitions are often so labor intensive, protracted and takes up significant project's resource. These processes are so long that by the time, because of modified requirements, they have to be changed before any development even begin. Especially, software development community found that traditional development approaches were not suitable for empirical, unpredictable and non-repeatable processes like software development (OOPSLA conference, 1995). As a response to these problems, agile project management approach was developed primarily as a tool for software companies to drive productivity. After that time, there is a large number of evidence for successful implementations of different agile methods not only in main IT projects. Their number also increase in many non-IT sectors, for example in high education (Navas and Munos-Luna, 2017), construction industry (Streule, T. at al., 2016), for managing research group (Hicks and Foster, 2010) etc. One of the most often used approaches in agile project management is Scrum framework. Some research shows that organizations that use agile methods, most often apply Scrum, or in 52%

of causes (PricewaterhouseCooper, 2012; Versionone, 2011). The term Scrum has been borrowed from rugby where a scrum represents a way to restart a game after an interruption. The Scrum can be viewed as agile, a lightweight framework for managing and controlling teams working on complex product development in a rapidly changing environment. Sometimes organization for project management combined different tools, processes or ideas from more than one methods. They simply apply the methods that best fit their own operations. In practice, one method is used as a baseline, supplemented by tools and techniques from other methods. Although it is not a secret that IT companies use Scrum in everyday practice, for different activities besides project management, authors have failed to find academic examples of their application to operational management. Describing specific adaptation of basic Scrum elements to daily IT service management requirements in one Croatian IT company, the paper explores the impact of used Scrum operational framework to team performance. Specifically, whether it is applicable to this specific case, the usage of Software Development Performance Index (SDPI index) across the key dimensions of Quality, Productivity, Predictability and Responsiveness as a main team performance measure. The rest of this paper is organized as follows: the section 2 is a portrayal of basic concepts in Scrum framework, followed by section 3 where was offered a presentation of usual activities in IT service desk. Section 4 describes Scrum adaptation for rolling IT service desk operations. Section 5 explores dimensions of performance measure to apply, and section 6 presents conclusions.

2. SHORT DESCRIPTION OF THE SCRUM FRAMEWORK

The Scrum framework (shown in Figure 1.) is built on three major concepts: roles, artefacts and events. The Scrum roles are: Product Owner, the Development Teams and Scrum Master. The Product Owner knows what needs to be built to enable the project and how the sequence of builds should progress. He/she is in charge of creating, updating, prioritizing, optimizing a list of Items (Product Backlog) and tasks of what needs to be done by the Development Team. The Product Owner main responsibility should concern maximizations of the outputs based on a calculation of ROI (Return on Investment). The team is self-organizing, cross-functional while the leader's role changes depending on needs of the specific iteration (Sprint). Although the size of the team varies, a number of seven (\pm two) members has proven to be successful (Sutherland, 2014, pp 46.). The Scrum Master set up all the events, ensures that everyone in Team understands what has to be done in a fixed timeframe and remove any obstacles so that team can focus on their work. The Scrum Artifacts are: the Product Backlog, Sprint Backlog and Increment. The Product Backlog is prioritized list of Items divided into Tasks representing a simple and detailed description of what needs to be done by Development Team ideally during one or two weeks. The Sprint Backlog contains a number of Items that the Development Team believes can reach the state of done during a Sprint. When an Item from the Sprint Backlog is considered as done, it is removed from the Sprint Backlog and it is becoming part of the Increment. The Increment is the sum of all Items considered done (Streule et al., 2016). The Scrum Events are: the kickoff, the sprint planning meeting, the Sprint, the daily Scrum, the Sprint review meeting and the Sprint Retrospectives meeting. The sprint planning meeting roles at the beginning of each iteration (sprint). During this meeting, the Development Team guesses the amount of work for the most important elements of the Product Backlog with different techniques (like Planning Poker). The Sprint is an iteration in which the functionality or increment of the product is further developed. All product development sprints will have the same length of time for more effective measurements of the work. The new Sprint starts immediately with the conclusion of the previous one. Each sprint begins with a daily Scrum meeting (always at the same time and location), typically lasting no more than 15 minutes. In that meeting, it is expected that each member of the Development Team answers three questions about: what each of them did do since last Daily Scrum, what they are going to do until next

Daily Scrum, and what obstacles they have prevents him/her to reach the Sprint goal. In that way, it is ensured that everyone can see their own progress and everyone knows what the others are working on. After each sprint, during the Sprint Review, the Increment, as a functionality created during the sprint is demonstrated to the product owner and, if needed, remakes are made to the Product Backlog. The goal of the Sprint Retrospectives meeting is the evaluation of "how was it done?" in order to suggest improvements to the process and performance. Focus on work done is made through the creation of Burndown charts. The Sprint burndown chart documents the progress of the sprint; eventually, Release burndown chart can be used for documentation of the release and the Product burndown chart document overall project progress.

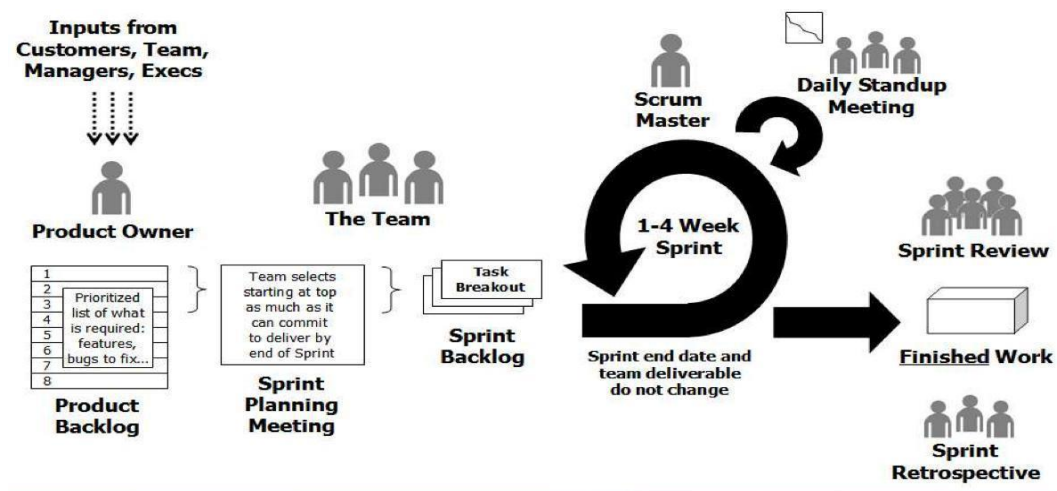


Figure 1: Typical Scrum Framework (Sverrisdottir at all, 2014)

The Figure 1 shows that the entire process starts with the main idea of a product/service that represents a functional and meaningful whole to meet all the needs of the customer or user. Based on the idea, a Product Owner compiles Product Backlog as a list of requirement's elements usually in the form of stories. After Product Backlog creation (which, through time is upgraded, modified and adapted), Product Owner with Scrum Development Team, decide priority from Product Backlog, plan a sprint and break out the tasks in Sprint Backlog. At the end of the sprint, all tasks/functionality with Sprint Backlog are expected to be developed, tested, documented and ready for delivery. The Sprint Review is a review of the work done. It is possible that the team did not perform certain scheduled tasks due to some external influences and such tasks are returned to Product Backlog for next sprint. Sprints are repeated until all of the Product Backlog tasks have been completed and completed. In the end, with the execution of all tasks from the Sprint backlog, it is expected to deliver a functional, tested and documented product that has achieved certain functionality. The Scrum process is finishing with Sprint Retrospective meeting which it has a goal to critically evaluate involved parties, processes and techniques used in order to suggest improvements and performances.

3. IT SERVICE DESK OPERATIONS MANAGEMENT

Operations management can be seen as a management of systems or processes that create goods and/or provide services as a combination of time, location, form, or psychological value. According to Stevenson (Stevenson, 2015, pp. 12), a key aspect of operations management is process management where a process consists of one or more actions that transform inputs into outputs. A process in service management transforms users' requirements as input to some forms of deliverables as an output. For achieving the desired outcomes, it needs to consistently apply, in a defined manner, a specific combination of controls and resources.

Specializations of these activities to IT service management is done through ITIL (Information Technology Infrastructure Library) framework using five distinct stages of Service Lifecycle:

- Service strategy ensures that organization's strategy is defined, maintained and implemented,
- Service design includes changes or improvements necessary to increase or maintain value to customers over the lifecycle of services,
- Service transition focuses on the quality and control of the delivery of a new or changed service into operations,
- Service operation supports responsive and stable services, and
- Service improvement that aligns the services with the business needs, whilst recognizing improvement opportunities and change.

IT service desk, for the purpose of this paper, can be viewed as a main IT support capability that could be a part of service operation activities defined by best practice of ITIL. We use this term intermittently with the term of IT help desk and we use that outside the ITIL standardization framework where each stage relies on specific ITIL's service principles, processes, roles and performance measures. In our case, IT service/help desk can be viewed as an internal operational IT support to organization's ecosystem built around the service lifecycle. It is a central point of communication of all IT specialists/employees in one organization. In that way, IT service/help desk is a small portion of activities that ITIL's IT service desk can perform. A balanced approach to IT service desk management, introduced by Addy (Addy, 2007, pp 29.), proposes the main key activities to ensure the operational, reactive and proactive satisfaction of business requirements (Figure 2). Operational activities addressed daily routine activities to keep IT infrastructure in functions during service lifecycle. These include IT preventive maintenance activities and specifically planned IT adjustments like database re-indexing, disk defragmentation, update virus definitions etc. Reactive activities ensure the ability to respond to external/internal unplanned events or incidents and incident management is the main part of this activities. Analysis of the common issues to determine the course of action that system needs to apply to prevent their recurrence is a part of problem management activities. Continuous improvement concerns identification of opportunities to improve and change plans or performance of service activities. It is primarily in focus of the change management.

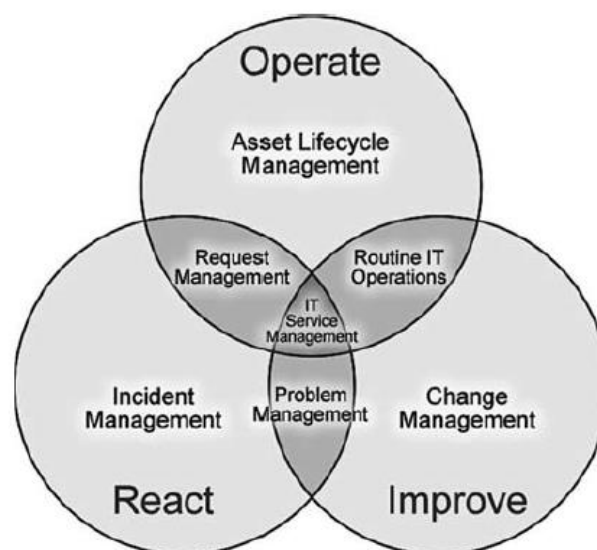


Figure 2: Balanced best practice model (Addy, 2007, pp 29)

At a figure below, it can be seen that request management bridges the gap between the operational and reactive activities and problem management can be the bridge between incident and change management.

4. ROLLING IT SERVICE DESK OPERATIONS BY SCRUM

The name of IT Company is disguised to preserve confidentiality. It is a global IT company that provides mobile cloud communications services for business users. The company's size, their number of employees and the growing complexity of their solutions determines a large number of IT administrators working in service desk, organized in several divisions: Network and System Administrators, Database Administrators, Web Administrators and Telecommunication Administrators. All of them adapted agile project management principles from software engineering departments and use them for operational management. Follows the descriptions of Scrum adaptation on a daily work of system/network administrators. The division has been self-organized as a team consisting of six members responsible for tracking IT development trends that includes design, installation, configuration and maintenance of network infrastructure. Their responsibility includes supplying of equipment (hardware in general) same as Local Area Network (LAN), Wireless (WLAN) and WAN (Wide Area Network) design while understanding network technologies and protocols, server architecture and server operating systems, design and implementation of solutions, user training and customer support. Team was also responsible for account management (active directory and Email administration), software updating and licensing, troubleshooting, optimization, encryption and decryption of data storage media, backup (data storage), security aspects, control, maintenance and management of processes, protection against malicious programs, documenting activities and writing procedures, etc. Some of the above-mentioned activities belong to the main key activities of balanced best practice model (Figure 2.), ensuring the operational, reactive and proactive satisfaction of company's requirements. The Scrum Development team consists of a six individuals within the area of expertise related to networks/systems administrations. They created their own Product Backlog based on the requests that came to service desk from other divisions/projects or planned activities. Product Backlog consists prioritized list items need to be done and documented. For supporting their work, the team uses a software called "JIRA" (available at <https://www.atlassian.com/software/jira/agile>) where each employee is a member of a specific project/ Product Backlog. Each employee has his own control panel with visible tasks that he or she is dealing with, and these tasks are directly related to the project/division in which the employee participates. Product Backlog items are constantly changing and supplementing because of the changing nature of the IT system. Some of the Items can be planned based on team's experience in operational and proactive activities. These items will be placed at a bottom of the Product Backlog user interface with a lower priority. Usually, it takes more time and effort to execute and document them. Activities belongings to incident management that cannot be planned in advance will have the highest level of priority shown on the top of the screen (Figure 3.). Certain project tasks were divided into sub-tasks needed to perform to get a functionality of the main task. This segmentation allows easier allocation of time through multiple sprints. The numbers of items that could be done in a sprint were entirely based on the experience from the team's members, without a systematic way to do that. According to that, the sprint duration was fixed to fourteen working days because, during the sprint, the team also have their own regular operational tasks that they have to perform daily.

Figure following on the next page

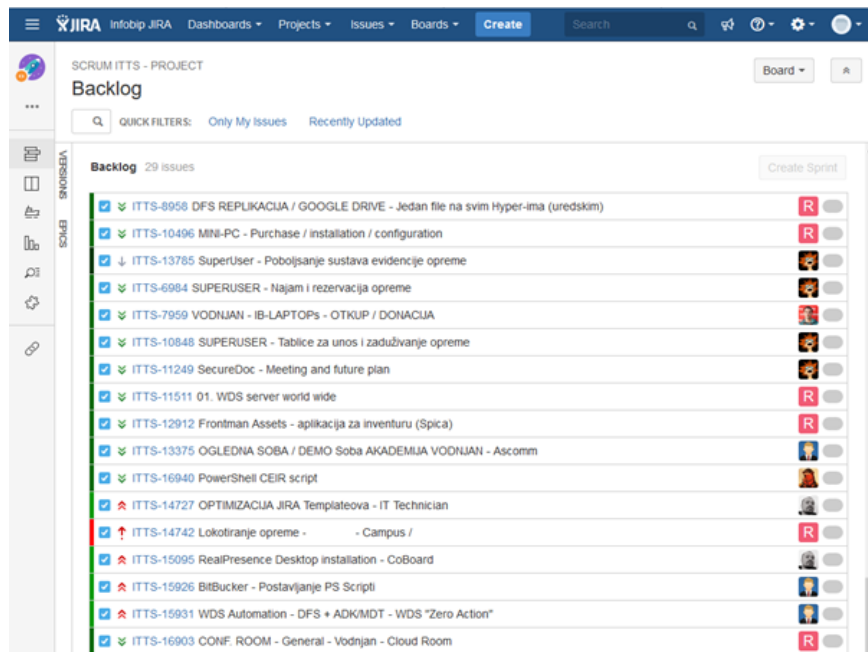


Figure 3. An excerpt of the Product Backlog interface in JIRA (Šiljevinac, 2018. pp. 37)

The goal of one sprint is to get as many Product Backlog tasks as possible. Product Backlog list is designed in a way that if the tasks are successfully accomplished they will bring new automation that will facilitate everyday work for the employees working on the project. Criteria for selecting the tasks that enter the next sprint are:

- Forward tasks from the previous sprint,
- Priority Project Tasks (High Priority Tasks),
- Priority pop-up tasks (Tasks that have emerged independently of work and have high priority),
- Remaining tasks that have not been completed for more than 15 days.

By virtue of these criteria, the team plan the sprint arranging order of assignments and a way of how to approach the problem-solving. Each team member agrees on tasks after assigning them according to their skills and responsibilities about the start and finish of the sprint. After planning all tasks appear on the Sprint Backlog. The Sprint Backlog is a list showing all tasks assigned to the particular member at the moment of sprint start.

Figure following on the next page

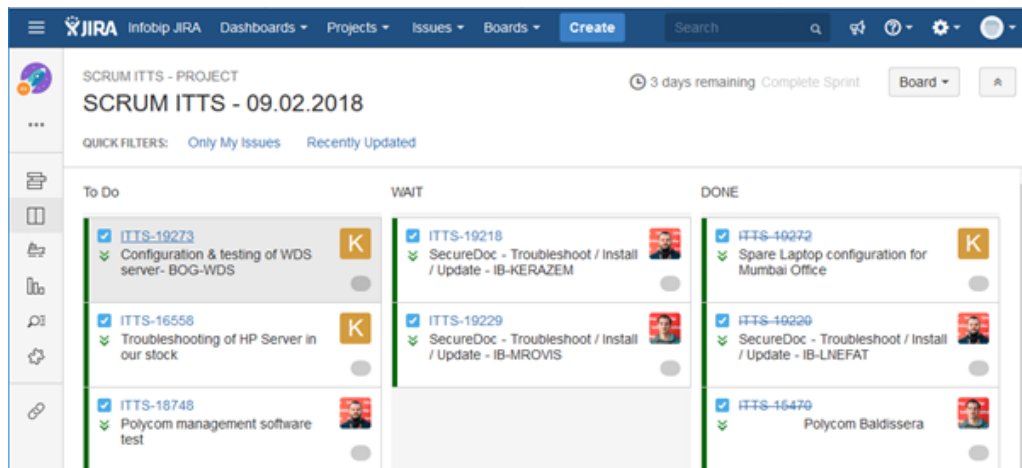


Figure 4: An excerpt of the Sprint Backlog status in JIRA (Šiljevinac, 2018. pp 40.)

For a better overview, the actual status of one sprint and individual tasks, a specific sprint review in Figure 4. were used. The column field labelled "TO DO" indicates tasks should be executed. The "WAIT" field, indicated the tasks not completed due to some external influence or difficulties. The "DONE" field represents tasks that are fully executed and completed. The goal of each sprint is to move as many tasks as possible from "TO DO" fields to "DONE" field in short time. Every day during the sprint, a daily stand-up meeting is held for 10 minutes where were analysed the issues from a previous day and anticipated problems for carried out during the current day. This daily meeting is an opportunity for consulting and knowledge sharing of the team members. Some members can be in remote locations around the world, and for this reason, this meeting has even greater significance for building a community and team affiliation. The Sprint review for half an hour is scheduled weekly and this is the opportunity to go deeper into the state of the sprint tasks. At that meeting, priorities and actual status are checked. Here it is decided whether a new problem will be classified as a daily activity, current sprint or backlog. Sprint retrospective is performed on a monthly basis and includes two sprints. The Retrospectives discuss the mistakes made during the sprint and changes are suggested to make certain things better planned for the future. As it can be seen in this case, the general Scrum framework was adapted to fit specific goals of system administrations where it was used only a part of the main concepts. Modification done in general Scrum framework can be seen at Table 1.

Table1: The used Scrum framework elements

Scrum Roles			Scrum Events					Scrum Artifacts		
Product Owner	Develop. Team	Scrum Master	Sprint	Sprint Planning	Daily Scrum	Sprint Review	Sprint Retrosp.	Product Backlog	Sprint Backlog	Increment
-	√	√	√	√	√	√	√	√	√	√

It looks like there are no exact assigned roles of Product Owner for the Scrum of IT service desk operations. The role of Product Owner is assigned to the person in the main project or its part where is defined sprint that requires specific knowledge or skills from system/network administration expertise. The Product Owner takes the client role in this case and his/her responsibility concerns delivering a maximum of required functionality for the lowest number of working hours. When a sprint appears from other projects, system administrators start their own scrum cycle. In fact, they do Scrum within Scrum. The team members play alternately the role of Scrum Master depending on the requests came to IT service desk from other projects, divisions or sprints. The functional request decomposes to tasks that becoming a part of their own Product Backlog.

During sprints, a team takes care about IT infrastructure compounding important aspects of services qualities as capacity, availability, security and continuity. In that way, the Product Backlog and Sprints have focused on functional requirements rather than on operations of services. In addition to routine or improvement IT operations, the Development team assigns a high priority to specific urgent request or problem identified from other company's projects/divisions. The absence of strictly defined roles of Product Owner increase the responsibilities of all team's members to represent the project externally to other stakeholders and to handle the tasks that appear in Product Backlog. It can be said that IT service desk has to use Scrum because the rest of the company do that in form of the projects and they found that is the easiest way to manage their work in the existing frame.

5. IT SERVICE DESK PERFORMANCE MEASURES

The Chaos report from 2016 (made by The Standish Group) shows that only 29% of all projects, irrespective of project size, are considered successful. Software development projects have better results and 37% succeeded in delivering all required features and function, on time and within budget. Agile project management can be considered to have a great impact on that project success. The measure of agile project successfulness is the functionality of the product/service, and indicators are not only limited to time, cost and quality (Ambler, 2010). Specifically, in academic literature can be found strong evidence about the relation between Scrum application and productivity, but also to other outcomes as a product/service quality, client satisfaction, cost reduction and team motivation (Kautz, K., 2014). According to Cedergen and Larson (2014), performance measurement is important as an aid to determine priorities and provide direction to the team, by highlighting how they are performing and where improvements would be most beneficial. The same authors found that traditional performance measurement based on lag measures in Scrum processes could not be applicable. In the same time, managers are not satisfied what they measure and why: they do not want measure performance for a control; instead, they want to learn how to improve actual work. From development team's point of view, in each sprint, they focus mainly on functionality, schedule, quality and team satisfaction, but not on the budget. They agree with the Scrum's benefits set out from Drury-Grogan, 2014: Scrum incorporates unpredictable events regularly through the projects, delivers cost-effective and user-driven services and deliver high-quality products faster, leading to more satisfied customers/employees. In addition to all mentioned above, they seemed to appreciate velocity, documenting the execution of a sprint, transparency, knowledge sharing and culture of collaborations. Comparison of agile team's performance could be made using the Software Development Performance Index (SDPI). SDPI represents the metrics framework for agile team performance, which has been developed at 2013. in cooperation between the Software Engineering Institute (SEI) and the Carnegie Mellon University. It provides a balanced set of team's outcome measures along four basic dimensions: Productivity, Quality, Responsiveness and Predictability. Productivity is based on throughput/ team size indicator that counts user stories and defects completed in a given time period. A quality indicator is based on defect density that count defects divided by man-days. Responsiveness is based on time in process measured by the amount of time that a work item spends in a particular state. Predictability is measured as a standard deviation of throughput for a given team over three monthly periods divided by the average of the throughput for those same three months. It seems obvious that SDPI can be applied for Croatian case of IT service desk performance measure when a team roll out their regular and planned activities. In situations when system/network administrators become aware of occurrence an problem, urgent request or incident, they have to manage established sprints' priorities in order to fulfil new requirements. When they execute own Scrum activities, SDPI perfectly shadows their performance. Simultaneously their SDPI will have a reflection to the success factors of each project that takes their part.

Current SDPI does not count altogether this indirect endowment to the other teams' performance outside the system administration team. In the case like this, where the result of an agile teamwork is not focused on developing complex services or products, rather on improving the process and functionality, the SDPI may need to be expanded to further tailored measures. For example, a measure named "Employers satisfaction" can show a state of contentment of other teams in the organization with the cooperation achieved with IT service desk.

6. CONSLUSION: THE INVISIBLE POWER OF IT SERVICE DESK

Numerous examples of Scrum implementations can be noticed outside the world of software engineering, mostly in the situation where people produce complex product/service and where it is sought quick adaptation of priorities, depending on obstacles or changes in the turbulent environment. In case of Croatian IT Company, Scrum promotes the principles and elements of self-organization in delivering specific operational service using iterative, adaptive and incremental approach. The Scrum framework with its characteristics is like "pieces of a jigsaw puzzle". Each element, by itself, does not bring about speed and flexibility. But taken as a whole, the characteristics can produce a powerful new set of dynamics that will make a difference" (Takeuchi and Nonaka, 1986). The description of self-organized members of IT service desks that build system functionality, using the "Scrum within Scrum" framework, shows the advantages of agile principle applied to the company's operation management. If they function well and follow the company's development, almost all infrastructures` activities tend to be invisible, like in this described case. People become aware of their performance in situations where the system does not function as planned. IT service desk found practical and useful to apply the same agile framework as a rest of organization. Scrum emphasizes measures of product/service development, which cannot be visible in supporting IT service desk daily operation activities. In this specific case, Scrum only reflects improvement of actual processes and methods applied from team`s members of IT service desk. Scrum application contributes to their work productivity, visibility and transparency, enable them to take a position with regard to any challenges they had to encounter and thereat they put more focus on the execution with mutual collaboration.

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SUSTAINABLE DEVELOPMENT THROUGH FSC CERTIFICATION IN WOOD INDUSTRY

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ABSTRACT

Unplanned felling forest resources, increasing the intensity of which threatens not only the environment, but far exceeds dynamics of planting new trees, which directly threatens sustainable development. Raising awareness about the importance of forests as a natural and industrial resource of the planet, inspired by various organizations in the world, dealing with the environment and companies that do business with wood and forest management to found the world an independent and nonprofit organization FSC in 1993. The goal of this council or board, is to encourage a responsible attitude towards the woods on the planet, through the awareness of those who are managing forests, timber and manufacturing industries as well as consumer awareness of the importance of sustainable development, which will contribute to increasing the company's image with FSC certified that engaged in trade, processing and wood processing. Certification of forest resources involves meeting certain standards that have been defined. Standards can vary to some extent depending on the program of certification, but it could generally be said that they are unique and common to most forest types, regardless of the character of the property and the attitude of the management. Most of the standards described principles (principles), criteria and indicators. The conclusion is that the business improvement of forests is necessary, but also inevitable, because of significant achievements of modern management, and constantly changing economic environment and environmental conditions. Furthermore, business improvement is the most important operational support forthcoming the restructuring of the company, where it has to rely on human resources, which are rated as highly qualified, but they need to be stimulated by organizational and motivational tools. The decentralization of planning and decision-making is the key to improving forestry business because of the adaptation of the objectives of a modern multi-functional forestry, which increasingly involves socially responsible forest management. Any improvement of the forestry business must start from its place and position of basic unit where basic public and commercial activities of the forestry sector are performed, and to evaluate possible contributions to the improvement of a particular management function should be considered the best practices of the realization practice in comparable activities, and only promotion must be equally referred to the economic activity of the forestry, but also to the public educational function of forestry in the environment.

Keywords: *quality, standards, certification, FSC certified, FSC COC certification, wood industry, sustainable development*

1. INTRODUCTION

The world is facing a problem of gradual decay of individual ecosystems today, and we can say that the situation is critical. The extermination of one of them affects unfavorably the state of other ecosystems. In a constant race for the realization of material goods and high financial gains, the human kind is exhausting natural wealth and bringing into question his survival and survival in general. One of the most proclaimed approaches that endeavors to protect the human environment as much as possible is the principle of "sustainable development". The most commonly used definition of the sustainable development is the one according to which it is meeting current needs without compromising the ability of future generations to meet their own needs. The concept of sustainable development gained worldwide attention as a result of the "United Nations Conference on Environment and Development" held in Rio de Janeiro in 1992. The most significant achievement of this conference was the adoption of Agenda 21, a set of principles for achieving sustainability, adopted by 172 countries which participated in the conference. The richness of forests and the associated land should be managed in a way that respects the sociological, economic, ecological, cultural and spiritual needs of current and future generations. Increased social awareness of the degradation and destruction of forests has led to consumers wanting to ensure that by purchasing wood and other forest products they will not contribute to this destruction, but to help preserve forest wealth for the future. In response to such requests, international organizations have emerged which have developed the standards that need to be met in order to gain the right to a protected mark which then differentiates products that have resulted in responsible forest management over those who did not. Forest certification is a procedure in which a third party is examining whether the management and use of forests achieves a predetermined ecological, economic and social level and confirms that the forests are managed in accordance with the principles of sustainability. Sustainable use of natural resources is the use in a way and in an extent that does not lead to their decay, but reflects on their potential to meet the needs and aspirations of present and future generations. The basic idea of certification is that consumers will buy, and in some cases pay, a premium, higher price for the products that originate from sustainable forest management rather than products that originate from forests that are not permanently managed or products whose origin is not proven. The previous ascertainment is based on changes in the way of thinking and, consequently, the behavior of modern consumers. The certification concept has been strengthened also by the activities of environmental non-governmental organizations, before all WWF (World Wide Fund for Nature). In order to achieve its goals, WWF has formed Forest-trade associations. The members of these associations which, in the marketing point of view have the characteristics of organized consumer groups, agreed on the commitment that they only produce and buy products which originate from certified forests. The associations exist in 14 countries and their members are some of the most important European manufacturing and trading companies.

1.1. FSC certification

The Forest Stewardship Council (FSC) was established as a response to the global forest destruction. Beside the FSC, there are other national and regional certification bodies around the world (e.g. PEFC). The certification of forestry management implies a procedure whereby an independent certification body issues a written certificate to the forestry company - that management performance is carried out in a given forest area, in line with predetermined, internationally recognized standards, which means that forest management companies contribute to improving the provision of environmentally responsible services to local and global communities, clean air and water, and also to the mitigation of climate change impacts. The FSC directly or indirectly deals with the problems of illegal logging, deforestation and global warming and has positive effects on economic development, environmental

preservation, poverty reduction and is contributing to political and social empowerment. The Forest Stewardship Council (FSC) is an international body that grants to certain organizations to issue certificates and thus guarantees the authenticity of their findings, and also makes a platform for forest owners, wood processing industry and various environmental associations to find a common solution for improvement of forest management and forest resources. The objective of the FSC program is to promote environmentally responsible, socially useful and economically sustainable forest management in the world by establishing a generally known standard that will be recognized and respected through the Principles of Responsible Forestry. FSC Logo can be found on various wood and non-wood products, from paper and furniture to medical products and accessories. This diverse group emphasized the need for a system that could credibly identify good forest management as a source for responsibly produced wood products. The FSC is a non-governmental organization with headquarters in Bonn, Germany, issuing certificates through authorized companies.

1.2. FSC and FSC CoC

FSC - Forest Stewardship Council is an independent, non-governmental, non-profit organization with headquarters in Germany, founded with the aim of developing and promoting awareness of the need for a responsible relationship to forests on the planet. The Forest Stewardship Council (FSC) has been established to promote responsible management of world forests. One of the tasks of the FSC organization is the establishment of standards whose application ensures the promotion of environmentally responsible, socially useful and economically sustainable management of world forest resources. The basic idea is that with the help of raising the ecological consciousness of the consumers, it is to stimulate sustainable forest management while respecting the ecological, sociological, economic, cultural and spiritual needs of present and future generations. CoC - Chain of custody is a supervisory chain. By issuing a CoC certificate and by pointing out the FSC logo to its products, the main ingredient of which is wood, the organizations send to consumers the information that the wood which has been embedded into it, went through a strict forest-cutting chain, from forest logging under the supervision of experts, to responsible processing and production through rational wood exploitation. There are 3 types of FSC certificates, i.e. labels that stand out on the product:

- FSC Pure – pure wood
- FSC mixed source – mixed sources where 50% is FSC certified wood
- FSC recycled – recycled wood

Practically this means that the FSC label that you've highlighted, in accordance with the CoC Certificate you obtained, for example, on the wooden desk you have made, gives consumers and your business partners the following information:

- I. That the wood comes from FSC certified forest (clean, mixed or recycled)
- II. That the logging in this forestry property is planned, which means the following:
 - a) No clear land left exposed to erosion
 - b) Plant and animal habitats not endangered
 - c) No displacement of the population due to the forest logging
 - d) The wood is not genetically modified
 - e) No uncontrolled mixing with wood of unknown origin
- III. That the whole tree or board is being rationally exploited which means that the waste is used for:
 - a) making other products (OSB boards, chipboards, briquettes, pellets etc.)
 - b) heating working rooms
 - c) making compost (fertilizer on a plant basis) for cultivation of for e.g. mushrooms

The FSC CoC (chain of custody) certification presents a confirmation of the chain of care for the sustainable development of world forest resources, forest ecosystems, and thus the ecological balance of the planet at all. The chain of care monitors the FSC certified material through a forest-to-consumer manufacturing process, including all inter-stages, and all owners of the production chain must be FSC certificate holders in order to mark the final product with the prescribed FSC labels. Such marks represent a link between a responsible production and consumption, enabling consumers to make a decision about a socio-ecologically responsible purchase. There are two key effects achieved by certification of forest management:

- Improving business performance, with the goal of achieving sustainable forest management.
- Increasing the competitiveness of forestry companies by maintaining a stable position on existing and better access to new and attractive markets.

2. SUSTAINABLE DEVELOPMENT

The term "sustainable" or ecologically acceptable development has been in use since 1987 when the World Commission on Environment and Development adopted the concept of environmentally acceptable economic development as a reflection of increased concern for the environment. Sustainable development should enable satisfying the needs of the present generation, but not on account of the generations to come.

Sustainable development implies several components.

2.1. Components of sustainable development

For a forest owner we can say that he manages sustainably the forest if he meets certain standards:

1. Meeting the economic standards: develops a forest management plan, reinvests a part of the financial profit in the forest, i.e. it provides resources to preserve the ecological productivity of forests, promotes local forest product processing etc.
2. Compliance with environmental standards: reduces the negative environmental impact, protects the soil and water resources, takes measures to protect the endangered plant and animal species and their habitats, exempts certain forest areas from the management, in order to preserve biodiversity etc.
3. Satisfying social standards: long term improving the well-being of forest workers and local community, ensuring continuous training of workers, observing regulations concerning the health of workers and their families, carrying out occupational safety measures, consulting the local community while planning managing activities etc.

Only when the standards from each of the three components of sustainable development are met, we can say that the forest is managed in a sustainable way. The FSC certification therefore means that the forest is managed by strict:

1. Ecologically responsible standards
2. Socially useful standards
3. Economically sustainable standards

The certificate can only be issued by an organization authorized by a FSC central base, which carries out the inspection of the organization, and by inspecting the documentation and the situation on the field determines the degree of compliance with the standard. The FSC certificate is issued for a period of five years and is subject to annual monitoring visits.

3. FSC PRINCIPLES

FSC Principles:

- Compliance with laws and FSC principles and criteria – the forest resource management must comply with all applicable laws of the country in which it operates, international treaties and agreements signed by the State, as well as the FSC principles and criteria
- Rights and responsibilities of ownership and use - long-term rights of ownership and use of forest resources and forest land must be clearly defined, documented and legally established, abidance by legal and customary rights of local communities, appropriate dispute resolution principles
- Rights of indigenous people - the legitimate and customary rights of indigenous people to own, use and manage their land, territory and resources must be recognized and respected
- Relations with the community and the rights of workers - forestry activities must sustain and promote social and economic well-being of forest workers and the local community in long term, employment opportunities, compliance with laws and regulations on health and safety, workers right of organizing and voluntary bargaining, management activities must take care of the results of social impact assessment, apply complaint handling mechanisms and compensation claims
- The benefit of forests - management activities must encourage efficient use of multiple forest products and services in order to ensure economic sustainability and a wide range of ecological and sociological benefits
- Environmental Impact - forest management must preserve biodiversity and its associated value, water resources, soil and unique and sensitive ecosystems and landscapes, thus maintaining the ecological functions and the integrity of forests)
- The forest management base (management plan) - the forest management base adjusted to the level and intensity of the activity, must be adopted, implemented and updated. Long-term management goals and means for achieving them must be clearly indicated
- Monitoring and evaluation - it is necessary to carry out monitoring that is appropriate to the level and intensity of management for the estimation of forest status, forest product yield, control chain, management activities and their sociological and ecological impact)
- Maintaining high-value protected forests - management activities in high-value protected forests must maintain or improve the characteristics that define them. Decisions relating to high-value protected forests must always be considered with caution
- Plantations - plantations should be planned and managed in accordance with principles and criteria 1 to 9 and principle 10 and its criteria. Since plantations can provide a variety of sociological and economic benefits and can contribute to meeting the needs of forestry products, they should be used to improve the management, reduce the pressures and to promote renewal and protection of natural forests.

4. ORDINARY PROCEDURES OF PUBLIC CONSULTATION

Except the participation of stakeholders, in the process of establishing a management base, each member must build mechanisms of information and enabling influence on the management and beyond that process, and for all the forests he manages, not just those that are the subject of the basis. Mechanisms that enable participation of stakeholders in forest management activities are as follows:

- Company websites
- Regular annual meetings with stakeholders with thematic sessions and open discussion options on the topic proposed by a particular interest group
- Presence in the media (local papers, radio, etc.)
- Regular and prompt response to inquiries

- Open phone
- Regular periodic meetings and gatherings
- Lectures
- Celebrations

A stakeholder is every social group, individual or institution that has a stake in the forestry sector. Interest groups include forest administration, forest owners, forest users, local communities, the private sector, civil authority, government agencies outside the forestry sector which have interests in forestry and development partners of the forestry sector. This interest can be expressed in terms of economic well-being, preservation of ecological functions (nature and environment protection, biodiversity, etc.) and social functions (recreational, health, traditional, cultural etc.). Stakeholders can directly or indirectly affect management activities of forests and forest land. Although for forestry we can say that all the population is in some way a stakeholder, the norm precisely defines the key stakeholders.

5. RESEARCH ON CERTIFICATION OF FORESTRY AND WOOD INDUSTRIES OF BOSNIA AND HERZEGOVINA AND CROATIA

In October 2002, the Republic of Croatia, according to the FSC scheme, certifies the total area of state forests owned by the Croatian Forestry Company Hrvatske šume d.o.o. Zagreb (about 2 million hectares). The obtaining of a unique certificate for the entire surface of state forest confirms the orientation of the Republic of Croatia towards sustainable management of forest resources. The forests in the Republic of Croatia cover about 43.5% of land areas (circa 2.5 million hectares) and represent an important natural resource. Of the total national forest area, the state owns 81% of forest and forest land, while 19% is privately owned. The survey on the application of international standards in the Croatian wood industry was carried out using a survey questionnaire. The companies that have successfully obtained an FSC certificate were used as a testing sample. A list of all certified FSC certified companies was obtained through the Croatian Forests (Hrvatske šume) web site and the FSC portal. A total of 10 filled questionnaires were collected. The research has shown that all 10 analyzed companies are exported to the foreign market, primarily targeting the European Union market. In Bosnia and Herzegovina the situation is worse if the percentage of forest certification is considered, but the number of certified companies is the same as in Croatia. The research has shown that 75% of the company's exports were conditioned by having a FSC certificate.

6. CONCLUSION

The principle of sustainable development is an increasingly important factor in the business of all economic subjects of one economy, and its role in the forestry and wood industry is even more pronounced. Taking into account the character of forests as a natural asset of special interest to the land, it is clear that their use cannot be completely abandoned to the market. Exactly as a guarantee of protection of natural goods from excessive exploitation, certificates for the wood and forestry industry appear. The application of these certificates on a global level is followed by a strong marketing campaign aimed at gaining a positive image in consumer's consciousness. The application of the aforementioned certificates for the forestry and wood industry started in Croatia and in Bosnia and Herzegovina. Most of the wood industry companies that have carried out FSC certification have done so at their customers' request. The activity that should be further worked out is encouragement of awareness of the environmental importance of the wood industry products, both in the buyers of these products and in the manufacturers themselves. Abidance to all the principles of certification will require certain renunciations, responsible behavior of all entities in the company as well as all actors involved in the company's operations.

Although the workgroup which has worked on introducing FSC certificates has invested tremendous effort to make the company ready for certification, this is not enough for maintenance of the acquired. It is more difficult to sustain the certificate than to gain it, so it is essential for all entities to retain their certificate successfully through their responsible management and remain recognizable in the effort to develop a sustainable business development.

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RAFTING AS A PART OF ADRENALIN TOURISM OFFER IN THE REPUBLIC OF CROATIA

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ABSTRACT

Sports and tourism are activities which in ancient times acted together so that sports tourism today is undoubtedly one of the most important industries which is characterized with increasing profits, without experiencing almost no aftershocks and repercussions of the global economic crisis. Modern tourism includes providing comfortable accommodation and healthy diet, but not neglecting the content of active leisure, recreation, sport, cultural relaxation with music and entertainment. The returning towards nature and reconnecting with tradition and their roots are pleasures that are increasingly required by the modern tourists. The modern passive lifestyle presupposes the development of new alternative forms of tourism related to the combination of active sport and relaxation, on the basis of which good health are maintained and physical and mental balance forces are restored. The second decade of the 21st century witnesses the active introduction on the international tourist market of specific tourist services aimed at those who are looking for strong sensations, and who are active users of extreme forms of tourism. Closely related to sports tourism is the adrenalin tourism, which can be defined as a type of tourism, involving exploration or travel with perceived (and possibly actual) risk, and potentially requiring specialized skills and physical exertion. Adrenalin tourism is characterized by its ability to provide the tourist with relatively high levels of sensory stimulation, usually achieved by including physically challenging experiential components. Adrenalin tourism is a gateway to break the routine, delving into strong physically and psychologically challenging tasks that can trigger profound ecstatic experiences. Also, adrenalin tourism helps in self-assessment of physical and emotional abilities. The aim of the study is to reveal the preconditions and conditions for the development of adrenalin tourism in the destination and to analyze and present main characteristics of rafting tourism destinations in republic of Croatia. Inductive, deductive, and descriptive methods are used for the purpose of this work.

Keywords: *Adrenalin tourism, Rafting, Sports tourism, Republic of Croatia*

1. TOURISM AND SPORT

Adrenaline activity is a personal challenge for tourists in a natural or exotic environment, exploring new experiences with a certain risk or a controlled level of danger (Buckey, 2006, p. 91). In recent years there have been new trends in tourism caused by globalization, the emergence of new technologies, political changes, economic integration, environmental concerns, etc. Adrenaline tourism is becoming more popular in the world, it has a positive impact on people, the environment and economic growth, and more and more tourist destinations want to develop this kind of tourism.

In Europe, more than 50% of travel is related to sport, and active forms of vacation are the fastest growing segment of tourist demand (Bartoluci, Čavlek, 2007, p. 72). Tourism and sport have always been linked to social phenomena. While in the old of Rome and Greece the sport was the initiator of the people's journey to visit great sporting events, in modern tourism sport has gained a wider role. Sport in modern tourism has not only an observational role - it is an important content of stay during which tourists are active participants in various sports activities (Bartoluci, 2003, p. 65). Contemporary tourism is marked by changes in all segments of business. The increasingly sharper market competition, changes in the environment, adaptation to the new system of market values and the change of affinity of tourists make it possible to demolish the traditional offer (Stipanović, Gračan, 2005, p. 205-213). Today, the growing expectations of tourists are backed by media and advanced telecommunications, higher education and previous personal experience and knowledge. The same factors also affect the faster transmission of information and the ever-greater impact of mouth-to-mouth promotion. Innovative offers that, besides basic standards, also provide unusual experiences, surprises and incentives, are more and more present in tourism. Tourists get a special atmosphere or emotional advantage. All of this is sold on the tourist market and according to the needs of the tourists it creates offers oriented to the chosen demand of this kind of wants. That particular tourism demand has initiated specific forms of tourism such as adrenaline tourism.

2. ADRENALINE TOURISM AS AN ACTIVE HOLIDAY

Adrenaline tourism is an activity that takes place in an unusual, exotic, distant or desolate destination. It strives to be associated with a high level of participants' activity, mostly in the open space. Adventurous travellers want to experience different levels of risk, excitement and relaxation, while seeking for a personal challenge (Millington, Locke and Locke, 2001, p. 91). Adrenaline tourism refers to all tourist activities that contain two of the following three components: physical activity, interaction with cultural tradition and meeting with nature (Scheider et. al., 2008, p. 22). The research conducted by the Adventure Travel Trade Association (ATTA, 2017) has shown that tourists who enjoy adrenaline sports are craving for transformative experiences. In fact, instead of accepting transformation as a by-product of their pursuit of fun and excitement, the adventure travel actively promotes the desire for personal development and change.

Figure following on the next page

Figure 1: Motivations for adventure travel (Adventure Travel Trade Association, 2017)

Adrenaline activities represent a personal challenge for tourists in a natural or exotic environment, exploring new experiences with a certain risk or a controlled level of danger. Adrenaline tourism promotes an active vacation in a preserved landscape with a dose of excitement, a contentiously complete program filled with fun and creativity, guided by well-trained and professional guides. Adventure travelers expect experience of different levels of risk, excitement and personal testing. Adventure sports are all sports activities that prefer speed, height, exceptional mental and physical effort, special equipment and a certain level of risk. Unlike conventional sports, the opponent here is not another man but a natural force or an obstacle, for whose overcoming, apart from persistence, requires good governance with a certain skill and responsibility (Millington, Locke and Locke, 2001, p. 92). Adrenaline tourism is oriented towards staying in nature and natural resources, so it can be concluded that the basic resources of any destination that develops adrenaline tourism are precisely its natural attractions and the environment. This form of tourism is one of the selective forms of tourism based on active living in nature, mainly using its own power to advance, with the desire to make a direct acquaintance with destination. It is believed that adrenaline tourism offers: an enhanced nature experience - the natural environment provokes a series of emotions, the excitement of which is crucial and separates tourists from everyday life; intellectual, physical or emotional risk and challenge, and represents an internal tourist award, providing the opportunity for enjoyment, learning and self-development (Swarbrooke et al., 2003, p. 31). The main characteristics of adrenaline tourism are (Buckley, 2006, p. 114):

- Use of the natural environment: participants are looking feeling of sensation and excitement, and not by observing nature, although these activities are not uncomfortable.
- Main motivation (risk, adventure) can be combined with others (fun, nature, landscape).
- The destination of adrenaline tourism must be adequately represented on the international market.

- Adventure tourists can use almost all types of tourist accommodation: camps, hostels, rural houses, hotels, apartments, etc.
- An adventurous tourist is usually young, although more and more adventurous sports are adapted by all ages. The most frequent group are tourists around thirty.
- In this form of tourism, seasonal changes have little impact.
- This form of selective tourism can be developed on a multitude of sites, including those of artificial origin.

The product of adrenaline tourism is a relatively well-defined and recognizable sector in tourism. Adventurous tours are commercial products and services that customers buy to engage in outdoor activities that are more exciting than observation and where the outdoor environment serves more as a foundation for activities than because of their landscapes, plants or animals (Buckley, 2006, p. 32).

3. DESTINATIONS OF ADRENALINE TOURISM

In many forms of tourism, especially those offering sun, sand and sea, tourists do not value destination itself that much as they value the price as a decisive factor. However, in some forms of tourism, especially in adrenaline tourism, the destination is of primary importance for tourists. The destination provides a key attraction that motivates tourists to travel. The destination does not only offer the attractions desirable by the adventurers. In addition to adrenaline activities that take place in nature, it also provides other tourist services such as accommodation, equipment, food, transport. Adrenaline tourism destinations can be typed in a number of ways (Swarbrooke et al., 2003, p. 126):

- Long-term destination vs. modern destination,
- Destination associated with certain types of activities,
- A destination that is exclusively based on adrenaline tourism vs. destinations where other types of tourism are also important,
- Adrenaline tourist destination oriented to the domestic market vs. destinations oriented mainly to the international market,
- A destination where adrenaline visit itself is due to climate, political tensions or lack of infrastructure vs. destinations that are comfortable to visit and offer facilities for adrenaline activities,
- Destination that actively promotes adrenaline tourism vs. destinations that do not encourage adrenaline tourism but attract tourists,
- A destination whose entire area offers opportunities for adrenaline tourism. where adrenaline activities are limited to individual locations.

Different regions of the world are associated with certain types of adrenaline tourism. A country can include a wide variety of adrenaline tourist destinations. Central and South America and the Caribbean have become almost synonymous for adventure travel. North America encompasses a large space so every adventurer can find something for himself. The selection of activities includes rafting in the Grand Canyon, ice fishing in Alaska, horseback riding in the wild west, diving in the tropical waters of Florida. Deserts, rivers, mountains provide various opportunities for adventure activities. South America has great popularity among the adventurers. Trekking by the Amazon's deep sprigs, biking to the volcano in Ecuador, diving on the Galapagos, several-day hiking in Patagonia, rafting in Chile, excursions to Machu Picchu, kayaking by Lake Titicaca, enable South America to be visited throughout the year. In the Caribbean, most adventure activities revolve around water like diving, sailing, surfing. Europe also provides some of the best adventure travels. Ireland, Scotland, England, Belgium and France offer some of the best hiking and biking trails. Germany, Switzerland, France and

northern Italy are popular for skiing, hiking and climbing. Whether it is biking around the Tuscan villages, mountain climbing in Mont Blanc, trekking in the Dolomites, kayaking in the Mediterranean waters, sledding with dogs in the north of Sweden, the choice is diverse. The Middle East offers hiking and camel riding in the deserts of Iran and Turkmenistan. Mountaineering and skiing are popular in Kazakhstan, Uzbekistan and Tajikistan. Jordan, Yemen and Oman are popular for diving in the Red Sea and the Indian Ocean. The desert hiking is offered in abundance especially in Oman, the United Arab Emirates and Saudi Arabia. Asia offers some of the most unexplored places in the world. Mongolia offers hiking through the Gobi Desert, and the Mounts of Songisan and Sorkasan in China are excellent for climbers. Smaller Japanese islands are well known for diving and surfing. In India, the safari is popular. Nepal is known for Mount Everest, but on the lower slopes it offers excellent climbing and hiking opportunities. Thailand, Malaysia and Indonesia are excellent for water activities. Australia and New Zealand offer hiking, kayaking, biking, ice climbing, and even bungee jumping in different landscapes, including forests, glaciers and some of the sumptuous coastline with plenty of opportunities for swimming, diving, surfing, kayaking and sailing. According to Millington (2001, p. 98) and United World Travel Organization (UNWTO, 2001), the international adventure travel market covered over 7% of all international travels in 2000. It is estimated that the adventurous adventure tourism on the domestic and international market is about 60 million or 14% of all travel. The main characteristics or adventures characteristics can be identified as: uncertain outcome, danger and risk, challenge, expected prize, novelty, stimulus and excitement, escape and separation, research and discovery, emotional opposition. It is difficult to give a universal definition of adrenaline tourism since adrenaline has different meanings for different people. Differences between nature tourism, eco tourism, adventure tourism, adventure travel, commercial expeditions, outdoor recreation are not clearly set. Generally, adventure tourism refers to the conduct of a commercial tour, where the main attraction is outdoor activity based on natural features of the location, mainly requires specialized equipment and is exciting for tourists (Buckley, 2006, p. 121).

4. RAFTING AS A SPECIFIC FORM OF TOURISM

Specific forms of tourism can be defined as a special group of tourist movements that are conditioned by a certain, dominant tourist motive driving tourists to visit destination whose tourist offer is adapted to the experience of the consumer's dominant interest. Contemporary theorists emphasize the development of alternative (specific) forms of "soft" tourism as travels that are not massive, schematic and impersonal. Those forms of tourism are also known as responsible tourism, individual tourism, tourism of special forms (interest), alternative tourism, etc. and represent the opposite of the disadvantages brought by mass tourism, and their aim is to satisfy the special wishes and needs of modern tourists (Geić, 2011, p. 222). Adrenaline tourism products make up a relatively well-defined and recognizable sector in tourism. Adrenaline tours are commercial products and services that customers buy to engage in outdoor activities that are more exciting than observation and where the outdoor environment serves more as a foundation for activities than because of their landscapes, plants or animals (Buckley, 2006, p. 32). Rafting is a demanding and complex job for skippers and organizers, but for most of tourists, it's a key fun on the water. Rivers used to be seen as barriers to cross over or as traffic routes for boats. Today, most attractive and valuable are the rivers that descend from the mountains or go through canyons. The simple raft, most likely one of the first waterborne vehicles, has become a boat with a miraculous adventurous spirit. Shuttles, originally the simplest type of vessel, have been used by many cultures. They are made of several bumps, thick boards or cans connected to the floating platform. The main similarity between the rafters from ancient and modern days is that they are relatively light and have a shallow gas. Because of this, rubber boats sailing on wild waters easily cross over and drift away from obstacles

(Buckley, 2006, p. 32). Well trained crews on the contemporary pneumatic inflator raft will bypass the dangerous currents in rivers with many rocks and elegantly overcome the rapids. Rubber boats were originally made as rescue boats, and later the army began to use them to unload troops on the shore. After the Second World War, the American market overwhelmed the surplus of military rubber boats. Although these first vessels were heavy and unobtrusive, they soon became a popular means of exploring local rivers among the rafters. The best time for rafting is during spring and autumn months, especially after heavy rains. Depending on the weight of certain stock on the rivers, people of all ages can choose rafting as an activity. They all consume it: adults, children, teenagers, business people, families, singles. Regarding the degree of difficulty of the rafting path, they range from the initial calm rivers to the rivers with high waves and rapids. According to the international scale of demanding there are six degrees (Houge Mackenzie and Kerr 2014, 5-27): The first stage refers to calm rivers with a slow flow. The second stage implies a calm river with a slightly faster flow with a slight wave. The third stage refers to rivers with intermittent waves, medium speed and sometimes mild waterfalls (best for rafting and getting acquainted with the sport itself). The fourth stage is already for more experienced raiders, there is a chance to get out of the raft, the river is fast, the waves are unpredictable. The fifth level refers to areas where the river is exceptionally fast, the paths are very demanding, it requires extreme physical readiness and there is a possibility of injury. The sixth stage is extremely dangerous for life, these are rivers that have fast streams, dangerous waves and big rocks. Despite their great physical abilities, concentration and experience, many athletes leave their lives on these paths. The table below shows the target markets as well as the sales promotion and marketing communications activities with the desired tourist segment when it comes to rafting.

Table following on the next page

Table 1: Activities of slaes promotion and marketing communications with desired tourist segment (Main Plan and Tourism Development Strategy of the Republic of Croatia, 2012, p. 72)

Target Markets	<ul style="list-style-type: none"> • Recreational - a larger segment, often part of the main vacation, predominantly men of younger and middle age • Passionate - a smaller segment, focused on the challenge, satisfied with with simpler accommodation, importance for them is interaction with other poeple, predominantly male middle aged and younger
Activities of product development	<ul style="list-style-type: none"> • Establishment of minimum standards for rafting centers • Acquisition of relevant, internationally recognizable licenses • Introduction of reputable certification systems • Offering small, themed accommodation facilities • Profiling several top rafting destinations • Attracting competitions and events • Establishment of a professionally run national adventure tourism association
Activities of merchandising and sales promotion	<ul style="list-style-type: none"> • Creating an online information and sales platform specializing in adventure tourism • Making online guides, with B2B content about rafting tourism offerings for specialized brokers, clubs • Creating an online newsletter about the offer • Organizing study tours for specialized brokers • Participation in specialized fairs and events • Targeted direct sales • Development and sales of innovative programs • Encouraging the development of specialized tourism agencies for products of adrenaline and sports tourism with the offer of complex programs • Networking of local and regional tourism agencies and partnerships with global and specialized distributors
Activities of communication improvements	<ul style="list-style-type: none"> • Creating an online information and sales platform specializing in adrenaline tourism • Organization of on-line and off-line information and education modules on the offer of adrenaline tourism for specialized brokers • Intensify public relations through specialized on and off line media • Organizing study trips for specialized journalists • Participation in specialized fairs and events

5. RAFTING TOURISM OFFER IN THE REPUBLIC OF CROATIA

In Croatia visitors who are interested in water-sports activities can find many offers, not only on the vast Adriatic coast which has excellent conditions for swimming and sports activities, but the interior of the country which offers excellent opportunities for rafting adventure with wild, sparkling waters through spectacular canyon clans located in the magnificent landscape of Croatia. Because of the variety of rivers and lakes, almost all variations can be imagined in canoe or kayak. You can choose a ride with less or more current water on fast rivers or light lakes. A good rafting offer is available by the river Cetina, which flows into the Adriatic Sea in Omis and is a paradise for canoes. Its beauty is enchanting, located close to picturesque villages that have inherited a rich historical and archaeological heritage as well as the beautiful nature

created for a perfect canoe trip. The river changes direction from the source to the sea mouth several times, and thus enables the possibility for different speeds in the wild waters. In higher areas it runs very quickly through deep canyons, and as it descends towards the sea the flow is slower and its width is increasing and it gives the kayakers the opportunity to pay attention to the beauty of the landscape. A unique rafting station is also at the mouth of the river Cetina (beside the beautiful sandy beach) that made its way through the magnificent big canyon. Less exciting, but beautiful and diverse is the River Dobra, located in the north-eastern part of Gorski kotar, which offers unlimited water fun for inexperienced canoeists and rafting novices, but it also makes wild rafting routes from the Gojak to Lesce power plant. In northern Dalmatia, there is a river Zrmanja, a favorite among rafting fans, though much more demanding. The stream of river and some waterfalls represent a real challenge for kayakers, some of whom dare to cross larger waterfalls while others are holding smaller waterfalls and slimmer waters that are less adventurous but also exciting and interesting. Those who want to immerse their paddles in the water without speeding excitement can do it on the rivers Kupa, Mrežnica, Korana and Krka. These rivers offer first and foremost modest rafting adventure, but also wonderful impressions for nature lovers.

6. CONSLUSION

In the bustling and monotonous rhythm of today's lifestyle, a man cries for breath-taking moments to feel alive. Time has become the most precious currency. Tourists want every minute of their memories to be memorable. There is an ever-increasing need for "smartly spent" leisure time. Thanks to this, both in the world and in the Republic of Croatia, the trend of active tourism is recognized. Travel, besides the opportunity to meet new places and enjoyment, bring a chance to explore and try out new things. Among the most popular one is the adrenaline tourism recognized as a holiday that turns into an unforgettable adventure. Reserved for the bravest, adrenaline tourism brings a unique experience that, in addition to accelerated pulses, brings a new look to the place where tourists reside. From rafting on fast streams to parachute and bungee jumping, the adrenaline-spicy tourism is a popular way of entertainment in the world, but also in the Republic of Croatia. The ever-increasing popularity of adrenaline sports and similar activities has stimulated the accelerated development of such tourism in Croatia over the last few years, especially when it comes to rafting tourism. The largest number of trails in Croatia are related to the third level paths where the flow of the river is moderate, with some waterfalls and adrenaline injections, but without any life threats. Although there is rafting in the northern part of Croatia, it is more famous in Gorski kotar and Dalmatia. The most famous rafting destinations in the Republic of Croatia are located in Gorski kotar, at Risnjak National Park. One of the rivers that offers rafting opportunities is the river Kupa. During high tide rafter tourists can enjoy the natural beauty, while water levels are lower, the tour is possible by kayaking and canoeing. Apart from Kupa, there are rafting areas in the Mreznica river, which because of high waterfall in spring and late fall waterfalls and natural slides attracts rafters. The river Dobra attracts rafters with its "wild fall", while Korana with its magnificent beauty and quieter nature attracts nature lovers who like less speed. The river tourism, which is very important for nature tourism, does not require big investments and constitutes the entire offer together with environmental, historical, archaeological, cultural, authentic values and other types of tourism. Republic of Croatia, which has rich natural resources, offers a significant potential with a variety of river sporting activities, especially rafting.

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A STRUCTURAL EQUATION MODELING (SEM-AMOS) FOR INVESTIGATING BRAND LOYALTY AND CUSTOMER'S INTENTION TOWARDS ADOPTION OF INTERNET BANKING

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ABSTRACT

Internet banking has emerged as one of the most profitable e-commerce application over the last decade. Therefore, internet banking adoption is still a big challenge in developing countries like Pakistan. Thus, understanding the main determinants of internet banking adoption is important for banks and users. The aim of this paper is to shed light on the role of e-customer service and customer's perceived value to examine customer's intention to adopt internet banking brand loyalty of banks. A self-administered survey was conducted to approach 500 internet banking users in major cities of Pakistan. The data was analyzed with structural equation model (SEM-AMOS) by using covariance approach. Findings revealed that e-customer service and perceived value have significant influence on user's intention to adopt internet banking and brand loyalty of banks. To the best of author's knowledge this research is first that reveals the influence of e-customer service and perceived value in internet banking adoption context and augments the e-commerce literature.

Keywords: *E-Customer Service, Perceived Value, Internet Banking adoption, Brand Loyalty of Banks, SEM, AMOS*

1. INTRODUCTION

Electronic banking contains several types of services like ATM,s, Mobile Phone Banking, Real Time online banking, Point of sale, Call center banking, Plastic card composition(S. Samar, Ghani, & Alnaser, 2017). Therefore, present study will just focus on internet banking that is the most innovative and convenient service of Electronic banking. It was argued that organization should use technology if they want to survive and get advantage on competitors (Goetsch & Davis, 2004). According to the Earl (1994); Samar Rahi (2016) the most important tool in business is technology without it companies cannot survive and never get advantages on competitors. In views of Rahi, Ghani, and Ngah (2018) elaborates internet and its related services, it is a physical network that work in all over the world and it console different computers. With accession to this, R. Samar, Norjaya, and Feras (2017) described and draw the map of technology, found that technology is dependent on customer understanding if it is understandable then it is beneficial for the customer and for companies otherwise it will create more problems. According to Mattila, Karjaluto, and Pento (2003) investigated the history of internet banking in Finland research depicted that the trend of using internet banking in Finland is higher as compare to other countries. Moreover for transaction Finland is gained in number first place where online transaction is made via internet banking. This is possible because every bank of Finland is providing internet banking services and customers are well familiar with their banking products and its online features. Authors like Barnes-Vieyra and Claycomb (2001) argue that online transaction is the future of our companies. Banks and even in other sectors internet would be the central owner and perform different types of transaction with

minimum risk. Soon people will give priority to internet for all types of transaction (Samar Rahi, 2016). The use of internet is not limited to banking sector it could be used for non-commercial activities like paying the tax or entertainment. Precisely we can define e-commerce as applications that facilitate two or more than two parties for the purpose of business exchange (Rahi, 2015). Hence, Zhuang and Lederer (2004) illustrate that technology is playing a key role in every type of business and it is essential without it to get competitive advantages is impossible. Rahi, Ghani, and Alnaser (2017) argue that internet banking will change the way of services and interaction between managers and customers. Rahi, Ghani, and Muhamad (2017) describe the importance of customer relationship by using technology you can monitor your customer in good way as compare to physical interaction. A plethora of studies that have investigated the role of internet banking or overall electronic banking (Rahi, 2015; Samar Rahi, 2016; S Rahi, 2016; R. Samar, 2018c; Shariq, 2006). In views of Samar Rahi (2016); Woodruff (1997) have defined customer perceived value, the extent where customer satisfaction comes with customer perceived value, explicitly the meaning of customer perceived value where the ratio of benefits would be equal the cost that customer is paying in return of that product. More precisely, Richard L Oliver (1993) also nail down the definition of customer perceived value therein customer perceived value where customer outcome/input ratio is equal to the benefits of the customer outcome /input ratio and where customer get satisfied with what he/she is getting in return of what he is paying. Overall, this study attempts to contribute the body of knowledge of user's behaviors towards adoption of internet banking with influence of e-customer services and customer perceived value.

2. LITERATURE REVIEW

Banking sector is a huge sector and has significant impact on respective country economy. Within banking sector, internet banking is the most convenient service for customers and for Banks (S. Rahi & M. A. Ghani, 2016). For banks, it is helping to enhance efficiency and profitability (S. Rahi & M. Ghani, 2016). Internet is playing important role in our lives as Gupta, Rao, and Upadhyaya (2008) postulated that customer choose the internet banking services because it is convenient and have speedy action. Hence, (S. Rahi & M. Ghani, 2016; Shariq, 2006) a website in internet banking plays delivery channel role that is very important in usability point of view. Customer perceived value has also key importance according to R.L. Oliver (1999) stated that, Perceived value where the ratio of outcome and input is equal to the ratio of customer satisfaction and its perceiving outcome what he/she input during the purchase. The main constructs that were used in the development of theoretical framework had described below one by one in different sections.

3. INTERNET BANKING ADOPTION

In recent years, trend has changed as the ratio of technology users are growing. It could perceive that the trend of using internet is swelling (S. Rahi & M. A. Ghani, 2016). In this new area people want easiness in every field of life and internet banking is the most popular service in banking sector as it has totally changed the traditional banking system (S. Rahi & M. Ghani, 2016). In views of Liao and Cheung (2002) described the importance of the technology, it is one of the powerful tool for the success of the business, technology has changed the way of the business now customer wants convenience with latest features and companies are focusing to improve their technological systems like in banking. You may have seen change in website after a short time period it is because they want to get competitive advantages by improving their technological services (S Rahi, 2016). Information technology is a powerful tool or enabler in the era of customer service and create more opportunities for customer and as well as for investors (S. Rahi & M. A. Ghani, 2016). In addition to that authors like Weick and Quinn (1999) argues that information technology is important in any business the most essential

service is to provide front line function a place where you may don't exist but your customer exist and he/she is willing to buy your products, your customer can get better advantages by using internet services(Rahi, 2015). Hence, the cost they are paying for a specific transaction it would be effective, managers can watch their customers activities that how they are performing their operation during transaction (S. Rahi & M. A. Ghani, 2016). The most important factor is branchless banking where customers can perform their transaction where they dream to pay or buy the thing by using internet banking (S. Rahi & M. Ghani, 2016). According to (Nabi, 2005) stated that there are different types of definitions of internet banking therefore we can accumulate that it is a network that combine the computers all over the world. Electronic commerce refers to the use of electronic means and technologies to conduct commerce in various settings, such as business-to-business (B2B) and business-to-consumer (B2C) (R. Samar, 2018a). According to Jayawardhena (2004) internet developed with the passage of time there was an era when people were limited with their computers now you can use it on smart phones, prior it was used just for emails now the trend of using web has changed the overall picture of the internet, hence if you are using website for the selling purpose you are free you don't need to bound with your system , it gives comfort to employee like branchless banking where customer can perform their transaction without any interruption (S. Rahi & M. Ghani, 2016). Moreover those banks who are not providing internet banking they may lose their big share of those customer who want to use internet banking, now for companies authorities and organization it is essential to use the internet without it, it would be impossible to survive in competitive world (S. Rahi & M. Ghani, 2016). According to Jayawardhena and Foley (2000) described the importance of e commerce it is an application that provide facilities to customer for the purpose of business and exchanges between two or more customers moreover it bring effectiveness in business process. Hence, Mols (2000) claim that internet will change the way of business and the way of companies that in which they perform their activities. In views of S. Rahi and M. Ghani (2016) it will bring your customer more closer and will create strong relationship. Furthermore Kardaras and Papathanassiou (2001) explain the importance of the banking sector according to research e-commerce is best for banking sector to reduce the cost of the transaction as well as to make easiness in banking operation. Shariq (2006) explain that the use of internet and technology is the most important element to improve efficiency in business. With accession to previous studies Tan and Teo (2000) illustrate that internet banking will grow vigorously in coming few years and it will transformed traditional banking into branchless banking. (Orr, 2000) illustrate, banks that are not providing internet banking they will lose their customer. Meanwhile, Jayawardhena (2004) explain that website should be user friendly and it must have ample information that how user can perform operation during online transaction moreover if the website is not user friendly and it does not have proper contents that's means you are losing not only your customer but also trust and image your customer. According to Tarí and Sabater (2004) narrate that companies must know that how to hold the customer for their survival and use of internet is the best way to attract your customer anywhere at any time. Hence, companies should review their policies of product development they must get feedback about their online usage if your customers are giving you proper feedback that's means you are gaining trust via use of internet (S. Rahi & M. Ghani, 2016). Further to this Domegan (1996) postulated that companies get competitive advantage by improving their technology moreover technology is the important business tool if companies want to get advantage or want profit they must review their websites. Supporting to literature Domegan (1996) narrates that internet banking can perform transaction with efficiency . In views of Lichtenstein and Williamson (2006) narrate that internet banking is better than traditional banking and maximum operation should be transformed via internet banking.

4. BRAND LOYALTY

The brand is the identity of the product and image explains that is brand valuable or not (Samar Rahi, 2016). Brand is as important as product itself it differentiate the product with other products. Brand is an emblem or symbol and this symbol motivate the customer to buy their product, symbol may be called differently like logo according to the easiness or trademark. Furthermore the key role of a brand is to distinguish a product with other on behalf of quality or service (Samar Rahi, 2016). It creates trust between customer and manufacturer and gives competitive advantages. According to Kapferer (2004) defined that brand is an identity of a product. It was stated, that there are many angles to see a brand for customer, it includes overall experience from their buying process to using, hence brand image comes when customer have overall experience about the brand. In views of De Chernatony (1998) narrate that for successful brand image it is important that companies must observe the needs of the customer deeply and it must be relevant what customer actually want and does your product fulfill the need of the customer. Hence, Aaker (1997) explains in detail about brand image and stated that if the product has unique qualities it will attract the customer and will create good brand image, hence to maintain the brand identity it is important to maintain consistency about quality and services, research also explain that to attain customer attention via services and quality is the best tool to build strong image in customer minds. According to (Aaker, 1997; S. Rahi & M. Ghani, 2016) stated that if companies want good brand image they must be excellent to provide services, organizing, and should anxious about product delivery. Their research also elaborated that if companies want excellent brand image they must build brand identity. Authors like Ward (1999) also enlighten that brand image is differentiate your product by making promise with customer to make product reliable, durable, and quality effective. Moreover research shows that those companied who are committed with services and are providing distinctive product feature get higher brand image (S. Rahi & M. Ghani, 2016).

5. E- CUSTOMER SERVICE

E-Customer Service is one of the core dimension of E-Service Quality (Cristobal, Flavián, & Guinalíu, 2007). This dimension is related to service reliability, customer sensitivity, personalized service and fast response to complain. Therefore, the original conceptualization of service quality include: customer service: sensitivity, courtesy and customer knowledge (Parasuraman, Zeithaml, & Berry, 1985). E-services can be defines as deeds, efforts or performance that delivered by information technology (Rowley, 2006). According to De Ruyter, Wetzels, and Kleijnen (2001) postulated that internet based customer services was driven by customers and linked with information technology system, which aimed at to enrich the customer relationship. In addition to that Santos (2003) argued that e-service quality becomes a key factor for customers where comparing the technical features for instance prices of the products are easier than traditional channel. Furthermore, e-service quality can be summarised as the overall evaluation and judgments of customers in virtual market place (Mazuri, Samar, Norjaya, & Feras, 2017; Santos, 2003). In views of Zeithaml (2000) stated that internet service is the extent where a website facilitates its users during purchasing, shopping, getting information products or services. Authors like Cronin Jr (2003) have postulated that e-service quality was not used only for competitive advantages but it also involved customers in the process of development , feedback, and enrich the customer relationship. It was said that e-service considered for operational efficiency and profitability (Cronin Jr, 2003). In regards to e-commerce Zeithaml (2002) suggested that it was considered that offering low prices on website was the only guarantee of success, therefore these days it has proved that customer service is the key element for achieving results in an online shop. In addition to that these days consumer demand personal attention, delivery on time and to have their emails answered quickly (Zeithaml, 2002).

Hence, website management should ensure to achieve these expectations in the best possible way. Customer service in online environment had ensured key dimension of e-service quality (Liu & Arnett, 2000). Thus' the following hypothesis generated:

- H1: E-Customer Services significantly influence on internet banking adoption.
- H2: E-Customer Services significantly influence on Brand Loyalty of Banks.

6. CUSTOMER PERCEIVED VALUE

Customer perceived value has numerous types of element. According to Sweeney and Soutar (2001) explain that value matter where you have your potential customers and it must be equal to what customer is paying and in return what he is getting. Hence, Sheth, Newman, and Gross (1991) postulated that there are number of dimensions for customer perceived value like functional value where the operation comes, conditional value depend on conditions of the business nature moreover, emotional value also matter like your customer intention towards your product hence social value also count and lastly epistemic values (F. Alnaser, Ghani, & Rahi, 2017; F. Alnaser, M. Ghani, & S. Rahi, 2018; F. M. I. Alnaser, M. A. Ghani, & S. Rahi, 2018; F. M. I. Alnaser, Ghani, Rahi, Mansour, & Abed, 2017). In views of (Samar Rahi, 2016; Woodruff, 1997) explain the dimension of perceived value in detail functional value the intention of purchase while emotional value to create curiosity towards particular brand and perceive it emotionally. Therefore, in this study we will focus on perceived value that will reflect over all process from purchase to use and its outcome. In addition to that, R.L. Oliver (1999) describe the equity theory it includes the ratio of outcome/input in both perspective from customer as well as seller point of view. Meanwhile, R N Bolton (1999) also explain customer perceived value it is a process of evaluation that what customer is paying and what he/she is getting in return moreover perceived value also include monetary and non-monetary concepts like how much time your customer consume and endeavor to find a product and in return what he get it include all efforts from physical to mental. in views of (R.L. Oliver, 1999; Samar Rahi, 2016) emphatically stated that the concept of outcome to input must be appropriate to enhance the customer perceived value. Thus by following above arguments customer perceived is hypothesized:

- H3: Customer Perceived value significantly influence on internet banking adoption.
- H4: Customer Perceived value significantly influence on Brand Loyalty of Banks.

6.1. Proposed Research Frame Work

After detailed literature review a theoretical framework was developed. Fig: 1 presents the relationship of E-Customer Services that is the core dimension of e-service quality and customer perceived value on Brand Loyalty of Banks and internet banking adoption.

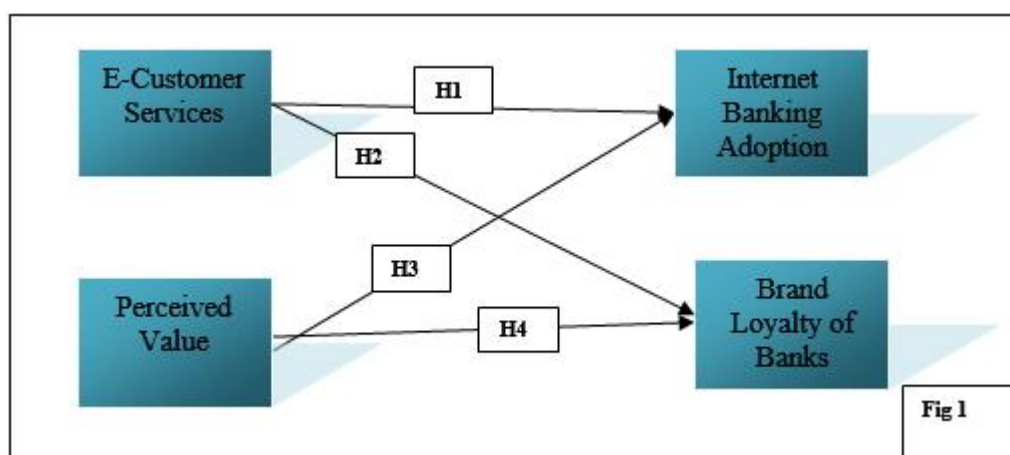


Figure: 1 Research Framework

7. METHODOLOGY

7.1. Research Philosophy

The criticism on E-Customer Service and perceived value has acknowledged that further motivate researcher to employ these determinants in internet banking adoption context. Positivist paradigm/quantitative approach was used to verify the influence of E-Customer Services and perceived value on brand loyalty and intention to adopt internet banking. According to Rahi (2017) stated that positivists believe in employing quantitative approaches in data analysis and support objectivity to define their ontological statements.

7.2. Measurement and Scaling

The survey instrument consisted of two parts, first part asked about demographic characteristics like region, age, gender, qualification while second part include four latent construct with 14 items. Three items for Customer Perceived value adopted from Samar Rahi (2016). Hence, Internet banking adoption consisted on three items adopted from Rahi, Ghani, Alnaser, and Ngah (2018), in addition to that three items of Brand loyalty adopted from (S. Rahi & M. A. Ghani, 2016) and lastly three items of E-Customer Service adopted from (Ho & Lin, 2010).

7.3. Sampling

The survey was administered towards commercial banks visitors. Formal letters were written to the respective banks of the commercial banks. Where, the researcher asked for permission from branch managers to collect the data within bank branches. The survey was administered in English language. The reason of this English language is the second largest language to speak in Pakistan. To further strengthen the methodology, about language, opinion was taken from branch managers. Majority of them were agreed with assumption as most of the customers are educated they can well understand English language. Convenience sampling was used in this study. The sample size has been estimated given the guidelines provided by Cochran (1977). As the population of banking customers was larger an ideal sample size would have to be 267 (Rahi, 2017). Following is the detail description of mathematical formula proposed by (Cochran, 1977).

$$n_0 = \frac{z^2 \times p(1 - p)}{e^2}$$

Where

n_0 = is the sample size

Z = is the two tailed area under the normal curve where $\alpha = 0.05$ and the z value is 1.96

e = is the acceptable sampling error

p = is the population of a proportion with a desired attribute (assumed to be 0.5 which maximises the sample size to be determined)

Given these values and an acceptable sampling error of 6.5%, the sample size is determined as: This gives the acceptable sample size to be approximately 267. According to Comrey and Lee (1992) stated that sample size of 50 is very poor, while 100 is poor, 200 is reasonable, 300 is good, 500 is very good and 1000 is brilliant for structural equation modeling. In light of above arguments this study was selected a sample size of 500 internet banking users.

7.4. Structural Equation Model (SEM)

For the purpose of data analysis Structural Equation Model was employed. Generally SEM consists of two models include: measurement model and Structural Model. Prior to structural modeling study has to assess the measurement model of latent construct for their dimensionality, validity, and reliability by going through the process named as confirmatory

factor analysis (CFA). It has been recommended by different researcher in the field of service marketing (R. Samar, 2018b; Udo, Bagchi, & Kirs, 2010). Hence, this study employed a confirmatory analysis (CFA) to check the influence of E-Customer services, and Perceived value on Behavioral intentions of users towards adoption of internet banking.

7.5. Reliability and Validity

The issues of reliability and validity were analyzed before employment of structural modeling. As the study is quantitative in nature, usually Cronbach's (α) has been recommended to ensure reliability. Therefore, Composite Reliability (CR) has been preferred for this study as supported by Henseler, Ringle, and Sinkovics (2009). Two type of validity was approached: Convergent and discriminant validity. The convergent validity was confirmed through estimation of average variance extracted (AVE) by following recommended values Fornell and Larcker (1981) as it must be greater than 0.5. Furthermore, the discriminant validity was also ensured through Confirmatory Factor Analysis (CFA).

7.6. Sample Profile

The pie chart reflects the demographic details of 500 respondents as sample for this study. As it can be seen in Figure 2, the age of the respondents 32% for Less than 25 years old, 34.6% that counts at age between 26 to 35 years, 22.1% for 36 to 45% and above 46 there are 11.2% respondents. Overall a good mixture of age was directed for this study. Figure 3: presents 53.1% of male whilst 46.9% female respondents.

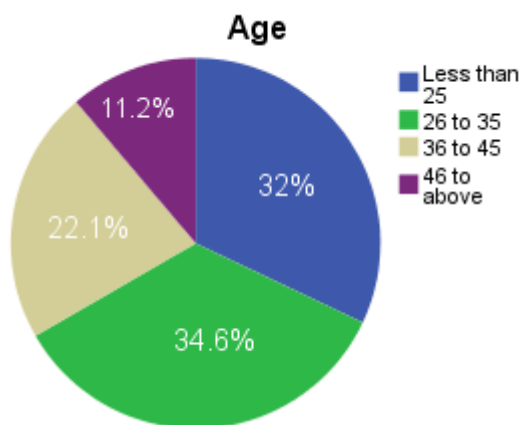


Figure 2

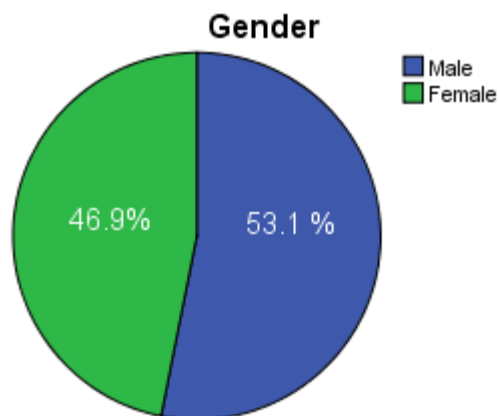


Figure 3

Data was further analysed with demographic characteristics of education and region. Figure 4: illustrated that there were 48.4% respondents that belonged to urban side while, 51.6% respondents had participated from country side. With accession to this education of the respondents was measured where 2.9% respondents were considered below high school education, 6.3% from those who attended high school, 10.2% respondents who attended college, the maximum share was graduate respondents with 50.8% and finally 29.9% respondents were those who were post graduated.

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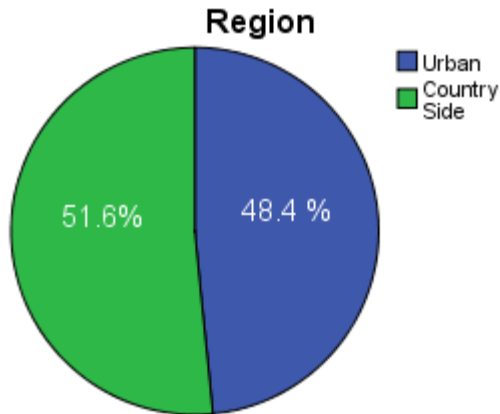


Figure 4

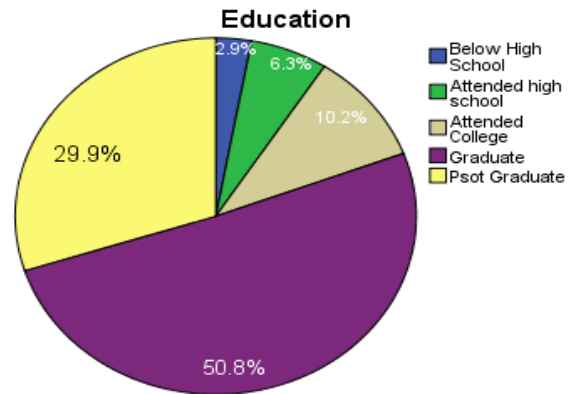


Figure 5

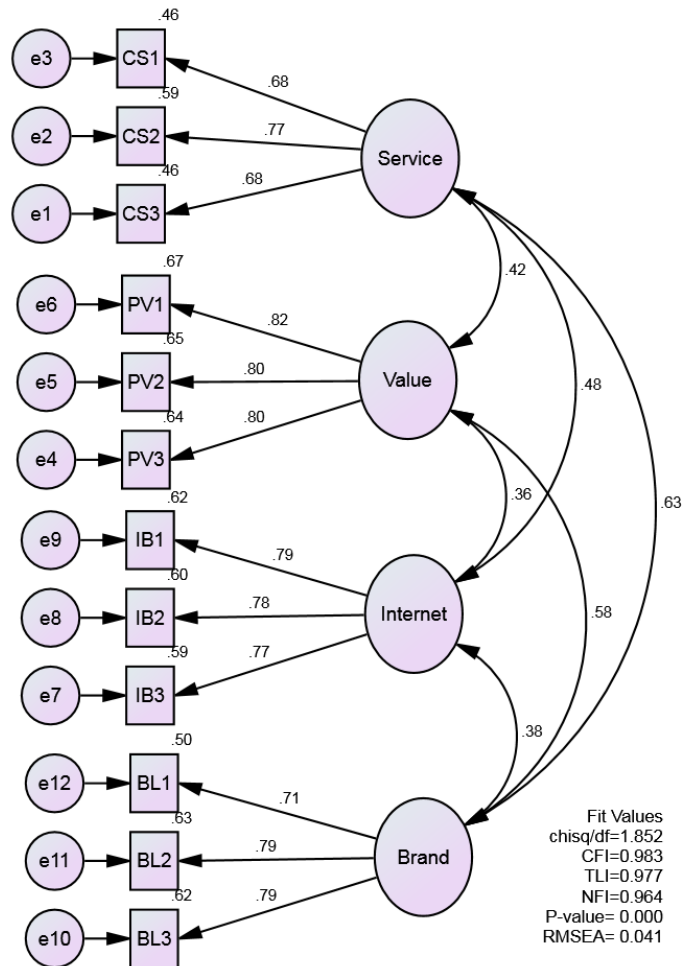
8. ANALYSIS AND FINDINGS

8.1. Explanation Measurement Model

The measurement for this study comprised of four constructs where E-Customer Services and Customer perceived value were presented as exogenous whilst, Internet Banking adoption and Brand Loyalty of Banks were presented as reflective first order endogenous variables. Table 1; depicted result of confirmatory factor analysis (CFA), where, factor loading values supported by Chin (1998) as recommended threshold level of 0.6. Further to this measurement model needs to be assessed construct validity, convergent validity, discriminant validity, composite reliability and average variance extract (AVE). Composite reliability (CR) Table 1; depicted, degree where the construct indicator represent the latent construct, values exceeded 0.7 recommended by Hair, Black, Babin, Anderson, and Tatham (2010). Hence, average variance extracted that reflects the overall amount of variance in the indicators accounted for latent construct, values in Table 1; exceeded 0.5 as recommended by (Hair et al., 2010). In addition to this the construct validity was assessed on the fitness of index of the model. Figure: 6 presents all model fit index includes: RMSEA= 0.041, CFI= 0.983, TLI= 0.977, NFI = 0.964 and chisq/df = 1.852.

Table 1: Measurement Model

Constructs	Loading	AVE	CR
E-Customer Service	Service	0.506	0.754
The online transaction process was accurate.	0.68		
The hyperlinks on this portal site are valid.	0.77		
Internet banking portal performs the service correctly.	0.68		
Perceived Value	Value	0.651	0.848
Compared to alternative Banks (don't have internet banking), the Banks (have Internet Banking) offers attractive service costs.	0.82		
Compared to alternative Banks (don't have internet banking), the Banks (have Internet Banking) charges me fairly for similar services.	0.80		
Compared to alternative Banks (don't have internet banking), the Banks (have Internet Banking) provides more free services.	0.80		
Internet Banking	Internet	0.608	0.823
I intend to use the system in the next months.	0.79		
I intend to consult the balance of my account on the platform of Internet banking.	0.78		
I intend to perform a transfer on the platform of Internet banking.	0.77		
Brand Loyalty	Brand	0.584	0.808
I feel that a banks branding services (Internet Banking) possesses its practical function	0.71		
I feel that a banks branding services (Internet Banking) possesses a positive symbolic meaning.	0.79		
I feel that a bank branding services (Internet Banking) can relate to the pleasant experience.	0.79		



The final measurement Model

Figure 6: The Final Measurement Model

8.2. Discriminant Validity

The data were subjected to discriminant validity. Table 2 illustrated squared correlation coefficient between the constructs. The square root of AVE (bold) in table 2 was found greater than its corresponding correlation coefficients, values presented in rows and columns. All these results presented in table indicate the achievement of discriminate validity as recommended by (Hair et al., 2010).

Table 2: Discriminate validity

Constructs	E-Customer Service	Perceived Value	Internet Banking	Brand Loyalty
E-Customer Service	0.711			
Perceived Value	0.42	0.806		
Internet Banking	0.48	0.36	0.779	
Brand Loyalty	0.63	0.58	0.38	0.764

Note: Bold values indicate the square root of AVE of each construct

8.3. Structural Model

Measurement model was achieved after conducting validity and reliability analysis. Further, the structural equation model was developed to test the proposed hypotheses in this study. For path analysis AMOS 21.0 was used. Figure 7 shows the results from the analysis that presents path coefficient from independent constructs to their corresponding dependent constructs as stated in the research hypothesis.

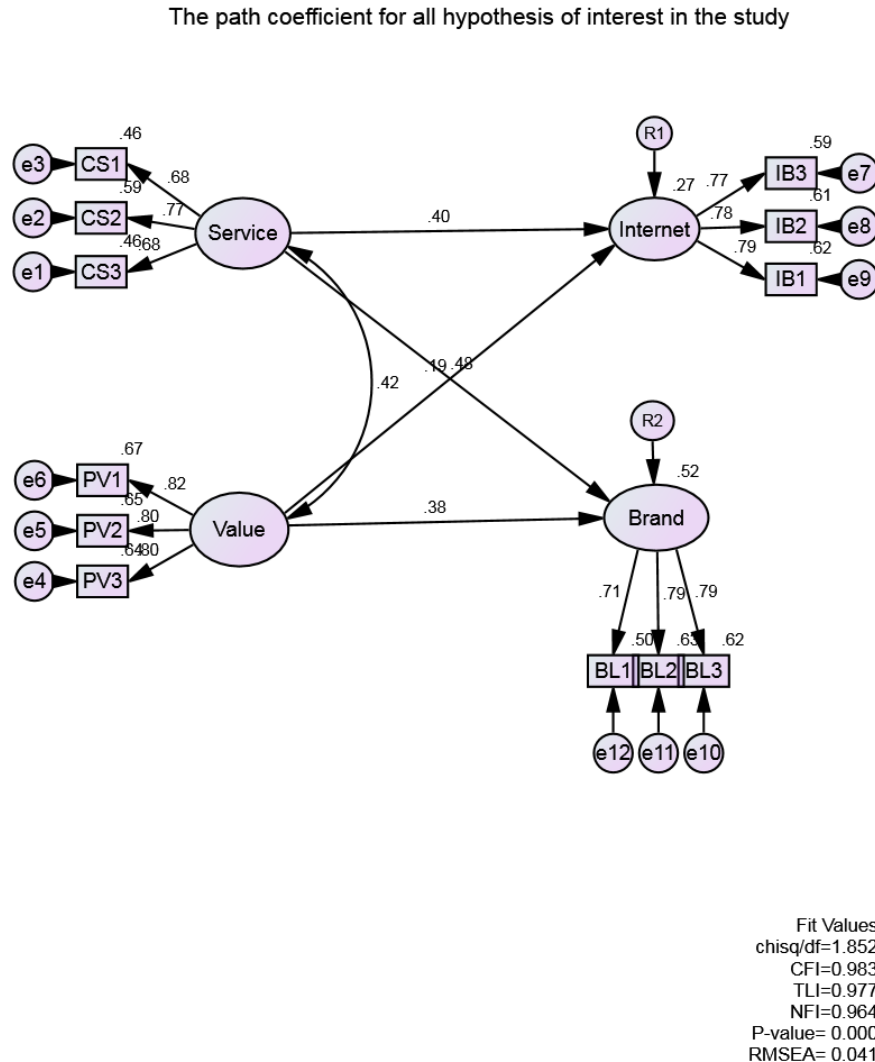


Figure 7: The path coefficient for all hypotheses

The results in Table 3 depict path coefficient of respective constructs with level of significance. The hypotheses results revealed that of all four hypotheses have significance relationship. The relationship between E-Customer services to Internet Banking adoption has supported by (H1: $b = 0.409$, $z = 6.271$, significance = 0.000). The relationship between E-Customer Services and Brand Loyalty of Banks has supported by (H2: $b = 0.191$, $z = 7.862$, significance = 0.000). H3 conveyed that Customer Perceived Value significantly relates with Internet Banking adoption and has been supported by (H3: $b = 0.486$, $z = 3.373$, significance = 0.000).

Finally, the results of H4, where Customer Perceived Value significantly influence on Brand Loyalty of Banks accepted and has been supported by (H4: $b = 0.388$, $z = 7.005$, significance = 0.000).

Table 3: Hypothesis testing

Construct	Path	Construct	Estimate	S.E	C.R	P	Result
Internet	<---	Service	0.409	0.068	6.271	***	Significant
Brand	<---	Service	0.191	0.071	7.862	***	Significant
Internet	<---	Value	0.486	0.052	3.373	***	Significant
Brand	<---	Value	0.388	0.054	7.005	***	Significant
Note: Significance level where, * $p < .05$; ** $p < .01$; *** $p < .001$.							

9. DISCUSSION/CONCLUSION

After conducting detail research it is clear that all private and Govt. Banks should focus on e-customer service. Internet banking is the key service for customer loyalty. Furthermore, if managers want that their customer must be loyal with banks they should focus on e-customer services and customer perceived value. The relationship between e-customer service and internet banking adoption reveal that by improving e-customer service banks can enhance internet banking users, whilst customer perceived value was also supported with e-customer service and internet banking adoption relationship. Meanwhile, Customer perceived value itself influence on internet banking users as presented in H3 if the customer perceived value would high the ratio of internet banking users will significantly increase. In accordance to all major findings, a conclusion can be drawn that, for customer loyalty internet banking is most important there is no doubt that the other findings like customer perceived value is also important therefore e-customer service is eye-popping for the sake of Internet banking adoption and brand loyalty of banks.

10. ABOUT THE AUTHOR

Dr Samar Rahii is a researcher at the Faculty of Economics and Management Sciences in Universiti Sultan Zainal Abidin (UniSZA). Prior to this, Samar has worked with top-notch travel joint like Amadeus and Galileo. He graduated on time with a PhD in Marketing from UniSZA, Malaysia. His areas of expertise include marketing strategy, technology management, consumer behaviour and quantitative research methods in management research. His scientific record consist of about 20 peer-reviewed papers ((indexed with Scopus), including books, such as E-Banking challenges and opportunities, Technology adoption in Banks, Structural Equation Modeling and Business Research Methods. His recent publication is in International Journal of Economics & Management Sciences, The Journal of Internet Banking and Commerce, Management Science Letters and World Applied Sciences. He has received the best paper award from IESEG School of Management France. Samar actively works in the international Scientific Community. He serves on the editorial boards of several international journals, including European journal of Economics and Business, Journal of Economics and Business, Austin Journal of Business Administration and Management and European Business & Management. Samar can be contacted at sr_adroit@yahoo.com.

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QUALITY AS ELEMENT OF ENTERPRISES COMPETITIVENESS

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ABSTRACT

Nowadays quality has a special place. That can be explained by incurred fierce competition in the global market as well as through public awareness of the quality and widely available information about that. Today, the consumer has remained picky and demanding. At the beginning the focus was only on products. The quality of products meant conformity consumer requirements. The competitiveness of enterprises mainly originates from quality competitiveness. Quality is an important aspect that promotes competitiveness. Actuality of the topic determined to the fact that quality - one of the important factors that can give capabilities of the a new product development and to conquer new markets. The aim of the study, based on theoretical knowledge, to explore the quality as the competitiveness's elements what can affect the success of the enterprise, to draw conclusions and make proposals. There are used the following methods: monographic and analytical research methods. The following tasks: 1) to analyze the quality meaning and the evolution of quality; 2) to develop the model of quality concept; 3) to identify the basic elements of the company's competitive advantage the realization in the market; 4) to give the model by companies a competitive advantage in building and implementation in the market; 5) to summarize conclusions and recommendations. Results show that in today's it is not enough just to analyze the progress made in quality field. Very important to analyze the competitive situation in the industry. Enterprises, who focused to consumers need to analyze and comply competition at the market. Exactly the enterprises different skills are a competitive advantage. Without different skills the enterprises can lose competitive advantage and the contrary due to their different skills the enterprises can create a competitive advantage.

Keywords: competitiveness, enterprises, quality

1. INTRODUCTION

Most businesses operate in competitive markets: they have to 'take on' and 'see off' rivals. Every organisation must decide for itself how best to try and to do this. Not all companies come up with the same answer and for good reason. Firstly, there are several different ways of gaining competitive advantage. Secondly, businesses need to used to their strengths and not all businesses have the same strengths. Thirdly, many markets are segmented and what is important to one set of customers may be less important to another set. So, businesses need to decide which segments of the market they are targeting. Ways of seeking to gain competitive advantage include: offering lower prices, delivering products more quickly, offering superior customer service, including after sales service.

2. DISCUSSION

Nowadays competitiveness starts with quality competitiveness and ends with quality competitiveness. The quality factor is one of the three dimensions that constituted quality competitiveness. Many authors have been engaged in the definition of quality. Major studies of competitive advantage through quality include Juran's trilogy. Crosby's (1979) approach of quality management and Deming's 14 points, From these fundamental studies, key factors to guarantee maximum quality, performance, and quality competitiveness for an enterprise have been identified Ishikawa, 1976; Leonard & Sasser, 1982; Monden, 1982; Deming, 1982; Garvin, 1984; Saraph, Benson, & Schroeder, 1989; Flynn, Schroeder, & Sakakibara; Ahire,

Golhar, & Waller, 1996; Black & Porter, 1996; Zeitz, Johannesson, & Ritchie, 1997; Kumar, Stecke, & Motwani, 2002 and Powell, 1995. Up to today, the scientists still have not come to a single definition of quality. Usually, the term “quality” concerns both goods and services. American scientist John Stewart defines quality as the feeling of each individual regarding something being better than another is. This individual feeling tends to change in the course of time depending on age and other factors (Stewart, 1994, pp.486-487). Other authors, in their turn, relate the term “quality” with objective properties: “The quality is the totality of properties defining the compliance of the object with determined requirements of a consumer, an institution or the producer itself.” (Kreslins, 2003, p. 207) Austrian economist Karl Aiginger treats quality as “goods or services that distinguish with high-evaluated qualities by the customers” (Aiginger, 2001, p.5). The properties that motivate the customers pay more are either measurable (endurance, speed etc.) or “intangible” (reputation, design, trust). In 2006, Harvey came to the statement, that “quality does not mean only quality guarantees and standards. Quality means process, meanwhile the standards aim to the result and levels. Quality is dynamic and it means changes” (Harvey, 2006, p. 26). They understands the quality as transformation and a meta-term of the quality meanwhile the other quality definitions are partial indicators of transformation process. The transformative approach is the essence of the quality and other definitions only assess the resources or results according to particular criteria (Harvey, 1996, p.22). Lee Harvey and Diana Green have grouped the interpretations of the term “quality” in several categories: (Harvey, Green 1993, pp.34-35)

- Quality as excellence. This is a traditional approach, where the aim stands for being the best;
- Quality as transformation. Every company must think on continuous development of its operation.
- Quality as the compliance to the goal to achieve. The definition of the term must be specific, meaning the quality of something for a defined purpose.
- Quality as “zero defects”. This approach is particularly applicable for mass products.

Important that definitions containing the idea of quality as applicability for use are too narrow, and they need extending by adding other characterizing features, such as for instance compliance etc. Researching the evolution of the term “quality”, I have concluded that it would be wrong to restrict the term “quality” with a single definition; however, it must be reflected in the quality model in question (See Picture 1). The model of Figure 1 contains the following statements of the questions: viewed by the company and the consumers, the values, the quality is the results and the processes. The disregard of any of these elements would produce negative effects on achievement of quality aim. The term “quality” is not restricted with the facets of production; it must include the perception of the consumers, who compare their expectations to the actual result in the perspective of satisfaction of their needs.

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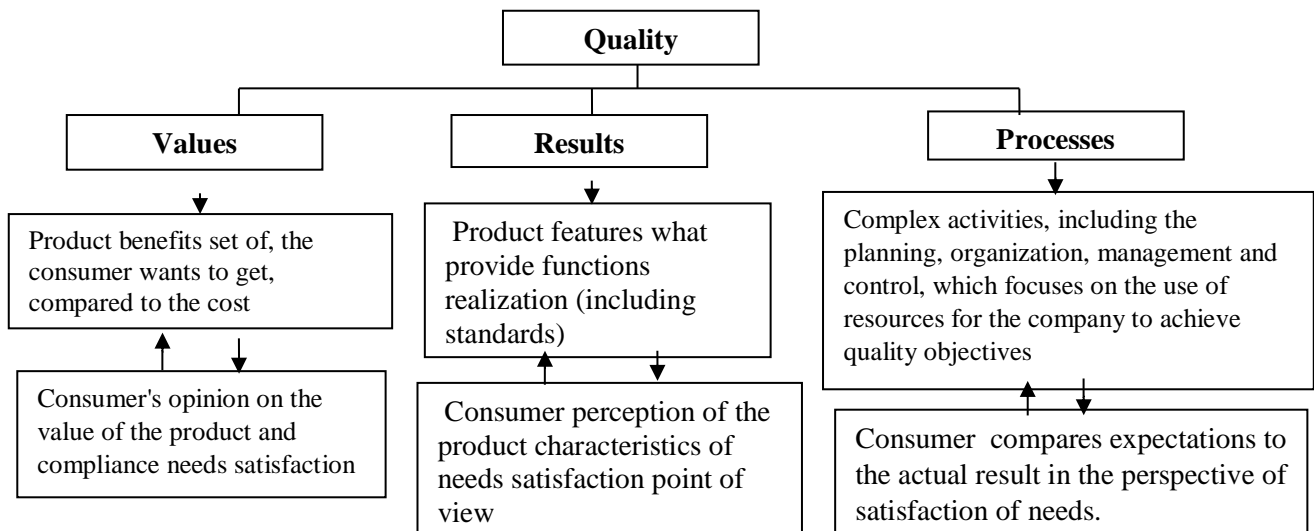


Figure 1. Model of the term “quality” (designed by the author)

The notion is widespread and includes both internal and external economic activities of the organization as well as the market of product distribution, including the society, suppliers, employees and management. Therefore, the meaning of the notion “product quality” is wider and has to be applied not only to the production process. The critical importance of quality management is realized all over the world leading to the improvement of internal and external operations of the company in all fields by quality management instead of continuous control. Large number of researches and publications has been dedicated to competitiveness and the related issues, including the works by C. K. Prahalad and Gary P. Hamel (Prahalad, Hamel, 1990) Jay Barney (Barney, 1991), Michael Porter (Porter, 1998), Philip Kotler (Kotler, 2006) etc. However, one needs to admit, that despite the considerable attention being paid to the issues of competitiveness, many important terms, for instance “competition”, “competitiveness”, “competitiveness factors” and “competitive advantages” are still often misinterpreted. The author concludes that there are no disagreements among the scientists regarding the substance of the notion of competitiveness meaning the rivalry among any subjects for the achievement of better results in a defined field. According to the economic theories, this rivalry goes on among the companies etc. for achievement of better results (Barney, 1996, Hoffman, 2000). However, the subject of disagreements often touches the types of competition and analyzing approaches of them. Author shares the opinion that the competition within a defined field should be separated from the market competition. The competitive advantages are based on distinctive skills of the company, since without them the company is not better than its competitors or potential producers of substitute products and therefore can lose the battle of competitiveness and vice versa – due to company’s distinctive skills the company can create a competitive advantage that may help to beat the competitors. However, not all skills can be defined as distinctive. If the competitors are able to imitate or copy the skill of a particular company in any of its functional operations, it becomes a basic minimum requirement of the respective field (Caune, Dzedons, 2009, p. 232). Among the researchers and experts that appreciate the importance of the distinctive skills in the creation process of the competitive advantages the sources there are certain disagreements regarding the sources of the aforementioned skills. One of the directions that emerged is the resource-based view of the firm. The followers of this direction is of the opinion that the totality of the existing hard-to-imitate resources of the company and its use provide the opportunity to achieve the competitive advantage (Carson, Gilmore, 2009 p.369). The research direction differs from the approach focused on analysis of the surrounding environment and described by Michael Porter,

who builds the theory around the interrelations of the internal resources and achievements of the company (Porter, 1998 p. 4). Prahalad and Hemmel have indicated the importance of the distinctive skills of the company in the creation of the competitive advantage. The main thesis advanced by the scientists are as follows: 1) the management of the company should pay great attention to the elaboration and implementation of strategy; 2) one of the sources of the competitive advantages is the ability of the management to consolidate technologies and resources, that enable the company to adapt to the environment; 3) the competitive advantage depends on skills of the company to perform the development of innovative products faster and cheaper than competitors; 4) it is necessary to create the link between the skills of the company and the final result; One of the main goals of the strategy is to define the skills to be developed in the company (Prahalad, Hammel, 1990, pp. 79-92). Author shares the statement that the skills of the company can be considered more important source of creation for the competitive advantage, since the efficiency and quality of the company in comparison to its competitors mainly depends on ability or fail to use the resources. Some researches divide the resources and the skills of the company, emphasizing the specific importance of the latter. Resources can include the investment of the performed processes or the results, meanwhile the skills transform the investments, thus adding the value to the result. The resources (values) of the company consist of any material on non-material values (good supplier relations, patents, reputation), that can be applied in planning, production, market offers of services and products, meanwhile the skills of the company mean the operations through application and coordination of the values within the aforementioned processes (Caune, Dzedons, 2009, p.384). The efficient combination of resources and ability is what build the distinctive skill of the company, allows to react immediately on environmental changes, and thus obtain a competitive advantage. There are several conceptions justifying the critical importance of the company's skills in the achievement of the competitive advantage (Lapa 2006, pp. 574-588). Therefore, in fact, the resources and abilities of the enterprises should be researched in correlation. The analysis of non-material and material resources alone, disregarding the skills of the enterprises, would provide one-sided and inaccurate view on competitive advantages. The idea of the sustainability of competitive advantages emerged in the 80-ies of the 20th century, when Georg S. Day indicated to the application of strategy that would help the company to guarantee the sustainability of the competitive advantages (Day, 1988, p.10). Michael Porter believes that a competitive advantage is sustainable, when it lasts for a good while (Porter, 1998, p. 214). The summary on elements that create the competitive advantage of the enterprises is represented in Figure 2.

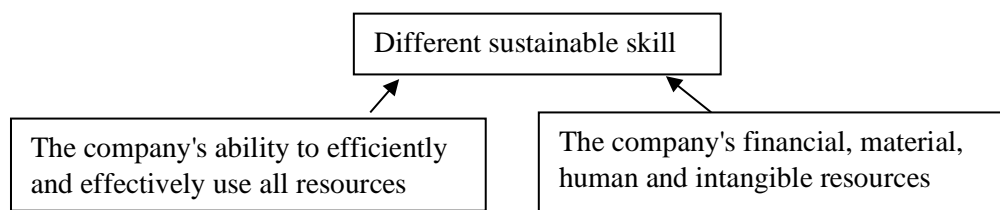


Figure 2. The elements of creation of the enterprises competitive advantage (designed by the author).

The picture shows that the competitive advantage is based not only on resources, but also on skills. The scientific literature mostly covers the issues related to the evaluation of the resources, meanwhile the subject of evaluation of company's skills and the related contents are hardly ever researched. Nevertheless, in today's economics, the skills increasingly play the main role in company's operations, and the impact of resources goes down.

The detection and analysis of skills is very important in the process of creation of competitive advantages. The competitive advantages must be sustainable. One of the most exhaustive definitions of a sustainable competitive advantage of the company was formulated by Jay Barney. He pointed out that "The enterprises has a sustainable competitive advantage, if it has launched a profitable strategy, which was not simultaneously applied to current or potential competitor, and the other companies are not able to imitate the benefits of this strategy" (Barney, 1991, p. 320). This definition points out that the company should pay the attention not only to its current competitiveness, but also to the potential competitors that could enter into the market in the future. Secondly, the definition sets the indicator of sustainability: the measurable value is the resistance against the imitation or copying. The resources and skills of the company that are hardly applicable to the use of environmental opportunities or neutralization of existing threat are rather weaknesses of the company. The distinctive skills should be valuable in order to allow the company to take the advantage of the opportunities offered by the environment and to neutralize the existing threat therein. Distinctive skills should be hard to encounter among the competitors. The resources can be valuable in relation to the income or costs, but if available to other companies, they cannot serve as the source of a competitive advantage to none of these companies. The distinctive skills of the company must be hard to imitate. When the company achieves the distinctive skill, the next step is to ensure its sustainability, since many competing companies can strive to achieve the same. Therefore, the resource in question possesses a sustainable competitive advantage as long as another enterprise has not tried to imitate or substitute the original resource. If the imitation of the resources is not more expensive than the original resource or the creation of skill, the competitive advantage is able to provide only short-term benefits and vice versa (Wensley, 1988, p.48). Author tended to agree that non-material resources have higher potential in terms of creation of competitive advantage, since it is more difficult to imitate the. However, there are some companies, which count on quickly imitable resources (Dogle, Hern, 2006, pp. 542-543). Long-term competitive advantages derive from brand management, quality management, stable and long lasting relations with consumers, creation of consumers' loyalty program and other marketing operations. With the help of distinctive skills, companies must offer to the market products of consumption value exceeding the value expected by the consumer. Consequently, one can achieve competitive advantages due to lower prices for the same consumption value complying with quality requirements. To consider the resources a source of potential competitive advantage, they should be able to create the value required by the consumers. More the resources can satisfy the needs of the consumers and to provide additional benefits, more increases their value from the perspective of the competitive advantage (Smithee, 1999, pp. 5-15). Company's strategy should efficiently use the available valuable, rare and hard-to-imitate resources and skills. For instance, by choosing the market strategy "average quality-average price" the company must take into account the need for appropriate quality management system, effective supply and information system skills. Innovations require new product development processes and creative skills of the staff. In fact, the distinctive skills and respective competitive advantages of the company are manifested in the market as compliance with the needs of the consumer and goals of the company, the quality (values, result, process), efficiency (result versus costs) and innovations (elaboration and launching new products to the market). Only the sale of competitive advantages can lead to the competitiveness of the company's product/brand in the market, therefore author cannot agree with the scientists who look at the competitive advantages and competitiveness both theoretically and in practice as to identic phenomena (Volodina, 2004, pp.416-425). The competitiveness is the result of the implementation of company's competitive advantages in long-term period. In point of facts, this definition does not contradict to the definitions of World Economic Forum and Michael Porter.

World Economic Forum defines the competitiveness as ability and present and future opportunities of the entrepreneurs to create for the world the goods of better quality and price in comparison to inland and foreign competitors. (The Global Competitiveness Report, 2009 – 2010, p.492). Michael Porter sees the competitiveness as the productivity of the company. The common feature is the ability to produce goods or offer services of high quality at low costs in comparison with inland and international competitors (Porter, 1990). Depending on field to which the term “competitiveness” is applied, it is possible to distinguish the following types: competitiveness of product (goods and services); competitiveness of brand; competitiveness of company; competitiveness of industry/cluster and state/region. In practice, the term appears schematically by merging Pictures 1 and 2 and creating a new Figure 3.

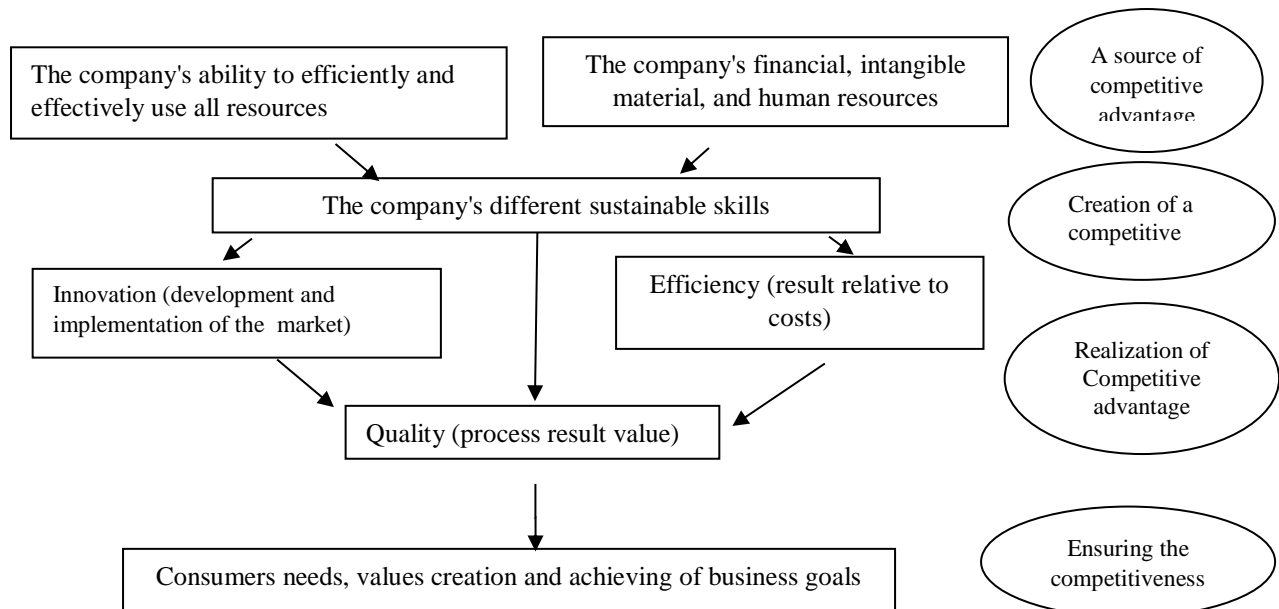


Figure 3. Model of creation and sale of company's competitive advantages (designed by the author)

The author affirms that the creation of sustainable, distinctive skills (use of resources and abilities) and their application to contribute in the improvement and efficiency in satisfying consumers' needs in comparison to direct or indirect competitors aimed to achieve the goals of the company that can be regarded as competitive advantage. The development of states depends on many elements of the market, especially on competitive advantages of the companies. The competitive advantage consists of several components – quality, efficiency, innovations as well as the awareness of customers' desires and their satisfaction. Analyzing each of the competitive advantages one shall consider that all components are closely interrelated and depend of each other. Author believes that it is possible to achieve a justified formulation of the term “competitiveness” combining the elements that constitute the competitive advantages and those of sale. Analyzing the importance of the competitiveness, the interrelation and interdependence of economic processes and subjects must be taken into account. See the aforementioned interrelation of economic processes and subjects in Figure 4.

Figure following on the next page



Figure 4. Interdependence of economic processes and subjects (designed by the author)

Each type of competitiveness has its particular characteristics, however, all of them tend to have common features. On the one hand, the competitiveness of an industry or a national economics can be implemented only through an efficient operation of a particular company. In the particular company the competitiveness, depend on consumers' satisfaction regarding the product quality and price, which, in their turn, constitute the value of consumption. In this case, the consumer is not interested in costs of the company or in sales problems regarding the product. The summary of the interdependence of the categories author has thoroughly researched can find below in Figure 5.

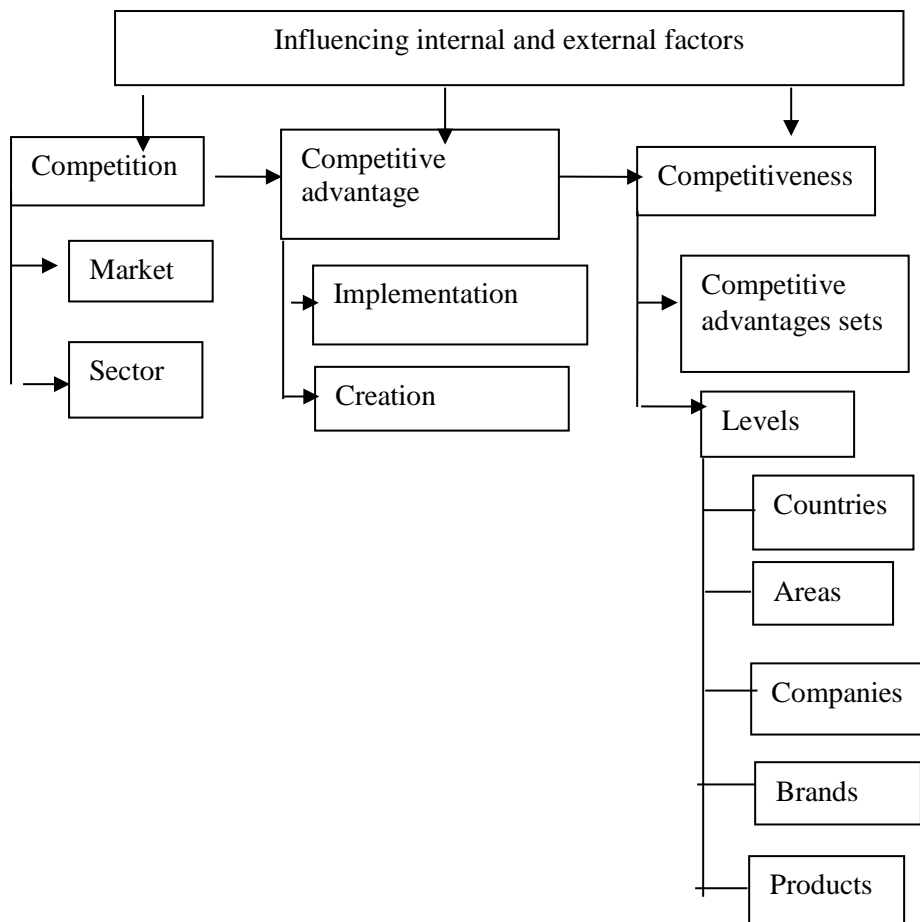


Figure 5. Interdependence of the terms "competitiveness", "competitive advantages" and "competitive capacity"(designed by the author)

As can see, the competitiveness, the competitive advantages and the competitive capacity are closely interrelated and their development depends on both internal and external factors. On basis of the interpretation of the term "quality" and the complex adoption of quality methods, the quality can be considered one of the basic elements of company's competitive capacity. In order to assess the competitive capacity of the company it is essential to make the comparative analysis of the factors.

The factors used in the creation of the competitive capacity as well as the type of their application keep changing along with the level of economic development of the company's operation country. Therefore, the compliance of the factors used for the creation of the competitive capacity to the stage of the economic development level produces the impact to the company's performance. When the state economics keep developing, new, distinctive skills that created the base of the competitive capacity must change, because the factors considered being strengths in the competition conditions during the previous state development level can turn into weaknesses in the new stage of development. Each country can have a particularly suitable innovative strategy depending on level of economic development. Author think, that the company to a certain extent depends on external factors, such as crediting, state tax system, investment environment, national innovation policy, social environment, development level or infrastructure, legislation etc. For example, due to different tax allowances for companies working in the field of scientific research, the state can increase the investments and, subsequently, thanks to the assigned funds and improvement of the system the state has the opportunity to affect business environment. Next group is internal factors, which, to my opinion, consist of competitive capacity of products, marketing, management and sales efficiency, stability of financial conditions and production competitiveness. Through the research of these factors, the entrepreneurs can take the opportunity to detect the fields, where some measures have to be taken in order to ensure the sufficient level of company's competitiveness in the country. (Wensley, 1988, p.15). In the result of interaction between the external and internal environment the company produces goods that are distributed in the market and, depending on level of competitiveness of the company, the company experiences profit or losses. In case of comparison, it is essential to find out, which factors are basic for the competitive capacity of the company and to what extent these factors are present. The comparison requires a systematic approach, since the changes of business environment and the development of economics change the factors affecting the competitiveness. In order to follow the competitiveness development trends in the industry and in the market as well as to monitor the changes in the affecting factors, the company should carry out several defined operations.

3. CONSLUSION

- Quality definitions containing the idea of quality as applicability for use are too narrow, and they should be extended by adding other characterizing features, such as for instance compliance etc.
- Quality can influence the development of any company. To consider the resources a source of potential competitive advantage, they should be able to create the value required by the consumers. More the resources can satisfy the needs of the consumers and to provide additional benefits, more increases their value from the perspective of the competitive advantage.
- Despite the considerable attention paid to the issues of competitiveness, many important terms, for instance "competition", "competitive advantages", "competitiveness" and "competitiveness factors" are still often misinterpreted.
- Among the researchers and experts that appreciate the importance of the distinctive skills in the creation process of the competitive advantages the sources there are certain disagreements regarding the sources of the aforementioned skills. One of the directions that emerged is the resource-based view of the company. The followers of this direction have the opinion that the totality of the existing hard-to-imitate resources of the company and their use provide the opportunity to achieve the competitive advantage.
- The competitive advantage means to create and implement sustainable, distinctive skills (resources and abilities) in order to satisfy the consumers' needs more efficiently in comparison to direct and indirect competitors and to achieve the aims of the company.

Proposals:

- To the entrepreneurs would be wrong to restrict the term “quality” to single definition. Instead, it should be reflect in a particular quality model (values, results and processes).
- The entrepreneurs clear understanding of terms “competitiveness”, “competitive advantages”, “competitive capacity” and “factors of the competitive capacity” can be achieved through the analysis and assessment of company’s competitive capacity, which is critically important for the strategic planning and implementation of operations.
- The research of resources and skills of the company must consider their interdependence. Observing the potential of a company or its competitors, the analysis of material and non-material resources disregarding the company’s skills will provide a one-sided and imprecise view on competitive advantages.
- The entrepreneurs should distinguish the competitiveness of the industry (structure, number of companies etc.) and the competitiveness of market (needs etc.) and to analyze them separately.
- The resources and skills of the company that are hardly applicable in taking advantage of the environment and prevention of existing threat should be regarded as the weaknesses of the company. The resources and skills of the company are worthy, if they provide the company a chance to reduce the cost or increase the income in comparison with situation, when no such resources would be available. The distinctive skills have to be valuable to make use of them by the entrepreneurs in combination with opportunities given by the environment and neutralizing the existing threats within.

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THE COMPARISON OF THE SELECTED LOAN PRODUCTS IN THE CHOSEN CONVENTIONAL AND ISLAMIC BANK

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ABSTRACT

One of the current discussed topics in the field of finances and development of financial market is also a topic of entering and possibilities of islamic banking into the countries with the conventional bank system. Regarding the fact that Islamic banking is gradually developing its products and its action not only in the area of the Persian Gulf, but also in Europe and other parts of the world, the awareness of Islamic banking sector and its services is expanding. Various conventional banks create the space for the special products and possibilities for the connection of conventional banking with the non-conventional and innovative one. The accelerating demand for Islamic banking directly influences the offer of services of this type of banking, i.e. the increase of number of branches with islamic principles resp. the increase of specialized branches focused on the products of Islamic banking in the world. Currently, more than 450 islamic financial institutions in more than 20 countries in the world offer products of Islamic banking. We have focused in this paper on the selected bank institutions and after the analysis of the product portfolio and particular bank chains we have chosen two specific subjects, Royal Bank of Scotland as the representative of the conventional system and Al Rajhi Bank as the subject of Islamic banking. The aim of this paper is then to process the comparative analysis of the particular conditions on the basis of loan portfolio of the chosen bank institutions for gaining the additional financial resources for living and common consumption in various bank systems. In the paper, there are formulated recommendations for practice on the basis of the results of the analysis that are formulated with taking into consideration the discovered advantages and drawbacks of the particular types of bank loan products.

Keywords: *Islamic banking, conventional system, loan, comparative analysis*

1. INTRODUCTION

Islamic banking is currently the topic that is more and more discussed also in the parts of the world where Islam is not the prevailing religion. In spite of this fact, Islamic banking and its principles are not very well -known in the field of world finance. In many European countries, there are banks that conduct business in accordance with rules and principles of the Islamic law, religion and culture. Conventional banks also create specialized branches aimed at providing its products and services in accordance with the principles of Islamic banking. Currently, the Islamic culture has significant importance and influence in the field of international politics and security. It is starting to have the importance also in the world of finance and economy. Islamic culture has gradually transformed itself from its birthplace on Arabic peninsula to the countries of the Middle East, North Africa and West Asia. Nowadays it is present also in the various countries of Europe and the United States of America. Islamic religion is based on five pillars, i.e. five obligations that every religious Muslim has to follow. These five pillars of Islam (arkán ad-din) can be considered today as the main features of the membership to Islamic religion. It belongs here:

1. Confession of fait (šaháda) – the Islamic confession of faith
2. Prayer (salát) – the obligation towards the God that is obligatory for every Muslim. They have to pray five times daily and according to the tradition, regardless of place or nationality.

3. Religion tax (zakát) – in the foreign languages there is not an exact equivalent for the word zakát, however, we can compare it to the words like purity or expurgation. It is the form of social help or some financial debt towards the God that is paid once a year by every Muslim. Consequently, zakát should be used for the purposes stated in advance.
4. Fast in the month Ramadan (sawm) – it is a 30 days fast that lasts from the sunrise till sun set. Muslims at that time abstain from any food, drinks, smoking and sexual intercourse. Ramadan is the month whose beginning and end is determined by the Islamic Lunar calendar.
5. Pilgrimage to Mekka (hadždž) – every Muslim that is able either physically or financially has to at least once in their life make pilgrimage to Mekka– the birthplace of the prophet Mohammed.

Islamic banking is mainly connected to Islamic laws šarī'a, while the meaning of this word is the way to the spring of water. Muslims believe that šarī'a means the ethical way of life to successes in this life as well as in the future one that is appeared by the God. According to professor V. Knapp, we divide legal systems into three groups. The first group is the continental legal system that is based on the system of the written, roman, traditional law. The second group is Anglo-American legal system created by the English judicial system. The last group is according to the professor Knapp the religious legal system, where also Islamic law šarī'a belongs (Knapp, 1996). The reason of the classification of the Islamic law šarī'a to the group of the religious legal system is, that it is considered as the set of the standards determined by the God. Šarī'a is not only the traditional law, as we know it. It is also the set of the universal morale rules of conduct to the God ('ibādāt) and to other people (mu'āmalāt). Islamic law is considered as constant as it is the system appeared by the God and existing from the eternity. Author J. Potměšil in his book describes šarī'a as following: „the set of the principles revealed by the God that every religious Muslim has to follow if he has to fulfil properly his religious obligations (Potměšil, 2012) Other author, L. Kropáček, who also studies the Islamic law says that: „šarī'a embodies in the structure of Islam the complex of divine order ordered to mankind, constant moral act.“ (Kropáček, 1998)

2. THE OUTLINES OF ISLAMIC BANKING

Islamic banking is specific by various features that are mentioned in by authors who deal with this issue in their definitions. For instance, the author R. M. Almarzoqi describes Islamic banking as banking that is based on the Islamic principles, that forbid receiving interest in loans. In spite of this, Islamic banking provides financial intermediation, savings and management of economic performance by means of the method PLS (profit and loss sharing), and by means of margin (Atbani – Trullos, 2014). Authors A. Ahmad, K. Rehman and A. A. Humayoun say that the basic aim of Islamic banking is to perform non-interest operations based on the principles šarī'a and the performance of the transactions that are allowed. (halal). They consider the sharing of risk among investors, bank and debtor as the most important feature of Islamic banking (Ahmad, Rehmad & Humayoun, 2010). International Monetary Fund also deals with the definition of Islamic banking according to which Islamic banking means the provision of financial services in accordance with the Islamic law šarī'a. Islamic law Šarī'a bans interests (ribā), products with the high rate of risk and insecurity (gharar), hazardous games and gambling (maysir) and also bans business with the short-term securities and financing banned activities that considers as harmful for the society (Kammer & Norat, 2015). We can generally characterize Islamic banking from the previous definitions from the authors dealing with this issue as the banking that offers non-interest products and services that have to be in accordance with the Islamic principles and Islamic law šarī'a. It is also characteristic for Islamic banking the sharing of profit and losses between creditor and debtor.

The demand on products and services of Islamic banking is rising steeply. The reason is not only the growth of Muslim population but also the fact that non-Muslim society is beginning to be interested in the products and services of Islamic banking. One of the reasons of growing interest in products of Islamic banking can be the resistance of Islamic banks against divergences, i.e. deviations on the global financial market. The accelerating demand proportionally influences the offer of services of Islamic banking i.e., the rise of the number of banks with Islamic principles, i.e. the growth of the number of specialized branches aimed at Islamic banking. The first signs of Islamic banking began to appear in the 50s of the last century when around the year 1950 the experimental local Islamic bank was established. (Erol & El-Bdour, 1989). However, the first modern commercial bank was established in 1975 v Dubai, specifically Dubai Islamic Bank (DIB). (Worldfinance, 2016) Dubai Islamic Bank was the first bank institution providing bank products and services that were in accordance with the Islamic principles and Islamic law šari'a. Approximately 390 Islamic financial institutions currently offer the services of Islamic banking in the different parts of the world. Not only banks but also insurance and investment companies and leasing companies are ranked into Islamic financial institutions. States with the highest number of institutions dealing with Islamic finance in 2017 are shown in the following Figure 1.

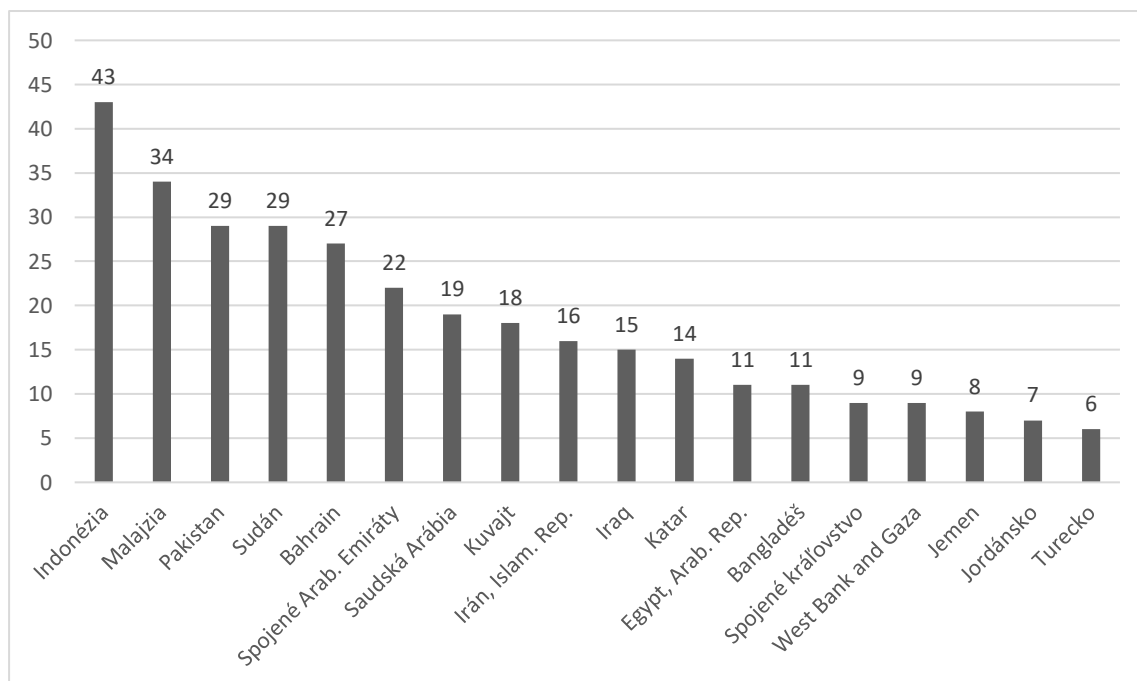


Figure 1: The number of Islamic financial institutions in particular countries in 2017

3. THE DIFFERENCES BETWEEN ISLAMIC AND CONVENTIONAL BANKING

The legal sources of particular bank systems can be considered as the main difference. The legal source of conventional banking is the continental legal system and legal source of Islamic banking is religious legal system. Conventional banking is closely connected to continental law that was constantly developing from the Western Europe also to other countries of different continents. Currently, it belongs into the most widespread legal systems in the world. Continental legal system is the complex of written law that is based on the traditional roman legal system. Islamic banking has to be in accordance with religious law, particularly with Islamic law šari'a, that bans interest. Islamic law šari'a is described more specifically in the sub chapter 1.1. - The sources of Islamic banking – Legal system. The legal systems of the mentioned bank systems restrict other important differences between Islamic and conventional banking. These differences are shown in the following tables.

Table 1: The basic differences between conventional and Islamic banking

	Conventional banking	Islamic banking
Loan interest	YES	NO
Sharing of profit/loss	Debtor is obliged to pay out principal and interest to the date of maturity regardless of the fact if they reached profit or loss. In case, they do not have enough resources for paying off, bank has the right to enforce security.	Bank participates not only on client's profit but also on their loss
Aim	Maximizing profit without any restrictions.	Maximizing profit is restricted by <i>šarī'a</i> .
Basic functions	Offering and receiving loans.	Participation on partnership business. Understanding of customer business.
Interest rates	It is usually based on floating rates.	Fixed profit margin (<i>murabaha</i>) Floating profit rates (<i>musharaka, ijara</i>)
Contract parties	Creditor (bank) and debtor (client).	Partners Investor and merchant, i.e., businessman. Seller and buyer

Source: own processing on the basis of information available from the various book and electronic sources.

Table 2: Differences between conventional and Islamic banking

	Conventional banking	Islamic banking
Supervisory Board <i>šarī'a</i>	This supervising does not exist.	Islamic banks are under supervision of so-called Supervisory Board of <i>šarī'a</i> .
Relationship to non-payers	Bank has the right regardless of financial situation of client to raise interest or to charge fees in case if client becomes nonpayer.	If client is not able to pay off loan because of their bad financial situation, bank will provide them free extended payment time.
Carrying <i>zakat</i>	This obligation does not exist in conventional banking .	The obligation to carry <i>zakāt</i> every year, i.e., the percentage part of profit in favour of society.
Loans from money market	Relatively simple.	Transaction has to be in accordance with Islamic law <i>šarī'a</i> .
Project financing	The importance is mainly on clients' creditworthiness.	The importance is mainly on project rentability.
Carrying <i>zakāt</i>	This obligation does not exist in conventional banking .	The obligation to carry <i>zakāt</i> every year, i.e., the percentual part of profit in favour of society.

Source: own processing on the basis of information available from the various book and electronic sources.

4. METHODOLOGY

This paper is processed on the basis of comparative analysis of the two chosen bank subjects. As the first step we had to find appropriate bank subjects that will act in comparative analysis. Following, collecting, summarizing, classification and studying necessary, officially published information about the chosen bank subjects, its branches and portfolios. We illustrated the gained knowledge, facts and calculations in various tables, graphs and pictures. As in many tables in case of Al Rajhi Bank the results are shown in the currency of Saudi rial (SAR), we re-calculated these results for better comparison for the amounts in British sterling(GBP). We used currency rate from the date 5.3.2016: 1 SAR = 0,2168 GBP in these calculations. For our purposes of comparative analysis, conventional bank system is going to represent the bank acting in the United Kingdom, specifically ,Royal Bank of Scotland. Royal Bank of Scotland was established by the royal deed in 1727 in the city of Edinburg. (Mackie, 2017) Currently, it is classified among the biggest banks as far as the amount of assets is concerned, not only in Europe, but all around the world. Royal Bank of Scotland, with the amount of assets 1,214 billions of dollars was on 22nd place in 2016 in the ranking of 100 biggest banks in the world. The bank occupied 9th place in the ranking of the biggest European banks. (Portál Rel Banks, 2017) Royal Bank of Scotland has currently approximately 1,8 million clients of personal banking, 110 thousand clients of corporate banking from which, 99 thousand are SME´s clients (small and medium-sized enterprises). The next bank acting in comparative analysis is the bank Al Rajhi Bank. It is clear from its name that it is the bank acting on the principles šari'a, and it is going to represent Islamic bank system. In comparison with conventional bank, this bank has substantially shorter performance on the bank market. The reason is, that Al Rajhi Bank was established in 1957, in the capital of Saudi Arabia, in the city of Rijád. Al Rajhi Bank belongs with its amount of managed assets of 80 billions of dollars, among the biggest world Islamic banks. (Portál Rel Banks, 2017) Not only Al Rajhi Bank belongs among the biggest Islamic banks, but it also belongs among the safest ones. It occupied the 7th place in the ranking of The safest Islamic banks of 2016. (Cunningham, 2016) Al Rajhi Bank is moderately approaching conventional bank, Royal Bank of Scotland with the number of employees, almost 10,000.

5. THE RESULTS OF ANALYSIS

„Mortgage is the loan with the maturity at least 4 years and the most 30 years secured by the right of lien for the domestic property also in the process of construction, that is financed, if this law does not state otherwise, in the amount at least 90% of the price, by means of issuing and selling of letter of mortgage by a mortgage bank according to the particular regulation and which is provided by a particular bank for these purposes:

- a) purchase of domestic property or its part,
- b) construction or change of finished constructions,
- c) maintenance of domestic properties ,
- d) paying off provided loan used for the purposes according to a) to c), that is a mortgage loan,
- e) paying off provided loan used for the purposes according to a) to c), that is not a mortgage loan.“ (Act on Banks SR)

Mortgage loan, as such does not exist in Islamic banking. The reason is that paying off mortgage loans that are provided by conventional banks is simply composed of a monthly instalment of principal and an interest. As Islamic banking system has to be in accordance with Islamic law šari'a, that strictly forbids paying ribā (interests), Islamic banks had to find the appropriate alternative to this product. We can meet in majority of Islamic banks with the expressions as for example Home Finance or Home Purchase Plan that can be freely translated as financing home. Clients of Islamic banks have in majority of cases the choice from two alternatives of Islamic bank products.

Those are:

1. ijara (rent/leasing) – bank obtains a property into its ownership and subsequently it rents to its client who obtains the ownership of property after paying off all instalments.
2. murabaha (profit margin) – bank purchases a property and subsequently it sells it to its client with the fixed profit agreed in advance. The owner of property becomes a client whose obligation is to pay off monthly fixed determined amount.

Let's suppose that client is interested in purchasing a property, particularly a three-rooms flat in the centre of the city of Edinburg. The average price for a m2 in the centre of this city is around 2 887 GBP/m2. (Portal Numbeo, 2017) If we take into account that the average flat has acreage 75 m2 its price will be then 216 525 GBP. We entered this amount into the attribute the value of property, i.e., purchase price. In the attribute type of mortgage we choose the possibility – purchase of the first living. We state advance payment on 10 827 GBP what represents 5% of the value of the property. It means that the amount of requested loan is 205 698 GBP, if we consider 20 or 30 years maturity. Mortgage loan in the amount of 205 698 GBP can be gained under the conditions that are shown in the table below. These results were generated the mortgage calculator of Royal Bank of Scotland after entering the parametres chosen by us. In the table, there is a period of repayment of mortgage loan, period of fixation of interest rate, starting and variable interest rate and of course the amount of monthly installment. As currently in the United Kingdom interest rates on mortgage loans are moving according to the Portal UK Deposits from 1,16%, the height of the starting interest rate 4,09% resp. 4,59% can appear as very high for the first sight. However, the reason of the high interest rate is low volume, only 5% from the value of property, own resources. The more own resources client has and the height of the parameter LTV is lower, the lower is getting the interest rate.

Table 3: The survey of the possibilities of mortgage loans (Royal Bank of Scotland)

Repayment period	Period of fixation of interest rate	Starting interest rate	Variable interest rate	The height of monthly installment
20 years	2 years	4,09%	3,75%	1 256,27 GBP
	5 years	4,59%	3,75%	1 311,36 GBP
30 years	2 years	4,09%	3,75%	992,74 GBP
	5 years	4,59%	3,75%	1 053,27 GBP

Source: Own processing according to Mortgage Calculator & Rate Finder Royal Bank of Scotland.

It stems from the table that the best for a client is to take mortgage loan with 20 years period repayment and 2 years fixation of interest rate. In this case, client will pay to bank approximately 47% from the borrowed amount. The worst for client is the mortgage with 30 years period of repayment and 5 years fixation of interest rate. In this case, client will pay to bank approximately 84% from the borrowed amount. Al Rajhi Bank offers to its clients who are interested in financing the purchase of property two forms of financing. The first form is so-called ijara, when the owner of property is Al Rajhi Development Company during the whole period of repayment and client becomes the owner of property on the day of maturity. The second form that is offered by Al Rajhi Bank, is the possibility of a common ownership between a client and Al Rajhi Development Company. In this case, the percentage share of client's ownership is determined and is calculated on the basis of client's own resources invested in the purchase of property. In this case, too, client gains 100% ownership on the day of maturity.

As far as the necessity of own resources, information on the webpage Al Rajhi Bank are a little bit confusing. The reason is that Al Rajhi Bank also in the case of 20 year, and also in the case of 30 year repayment period states the amount of deposit 30% of the value of property. However, it also states that in case of 20 year repayment period it usually does not request deposit, and in case of 30 year repayment period the height of deposit has to be minimally 5%. (Al Rajhi Bank, 2017) Because of this reason, we can not find out the parameter LTV, that determines the ratio between the amount provided by bank and the value of property, and so how much own resources client needs. Al Rajhi Bank states on its webpage orientational amounts of loans in case of 20 year and 30 year repayment period that are shown in Table 7. It stems from this table that in case of 20 year repayment period, the borrowed amount represents 70 till 84-multiple of monthly salary, and in case of 30 years repayment period, the amount of loan moves from 95 to 115-multiple of monthly salary of applicant for loan. The amount of monthly installment also depends on client's monthly income. In case of monthly salary SR 5000 is the amount of monthly installment 50% of monthly income, i.e., SR 2500. However, in case of monthly salary over SR 10000 included, the amount of monthly installment creates up to 60% of monthly income of applicant.

Table 4: Orientational amount of the borrowed amount (Al Rajhi Bank)

Monthly salary	The height of borrowed amount		Monthly installment
	20 years	30 years	
SR 5 000 (1 083 GBP)	SR 353 357 (76 608 GBP)	SR 477 454 (103 512 GBP)	SR 2 500 (542 GBP)
SR 8 000 (1 734 GBP)	SR 621 908 (134 830 GBP)	SR 840 318 (182 181 GBP)	SR 4 400 (954 GBP)
SR 10 000 (2 168 GBP)	SR 848 057 (183 859 GBP)	SR 1 145 889 (248 429 GBP)	SR 6 000 (1 300 GBP)
SR 12 500 (2 710 GBP)	SR 1 060 071 (229 823 GBP)	SR 1 432 361 (310 535 GBP)	SR 7 500 (1 626 GBP)
SR 15 000 (3 252 GBP)	SR 1 272 085 (275 788 GBP)	SR 1 718 833 (372 643 GBP)	SR 9 000 (1 951 GBP)

Source: Portal Al Rajhi Bank: Buy a Home

In the first case of mortgage loan, i.e. Home Finance, it is important to mention the above stated difference regarding the ownership rights on property. In conventional banking, client becomes the owner of property after paying its purchase price. In this case, bank has so-called right of lien on property, that is one of the main forms of security of mortgage loan in conventional banking. In case of Islamic banking, the question of ownership of property is solved by other ways that are mentioned above. However, in majority of cases, bank is 100% or majority owner of property till the end of repayment period. Client becomes the owner of property till the repayment of the whole borrowed amount. In the second case, it is important to look at the conditions that clients have to fulfil if they are interested in mortgage loan, Home Finance. These conditions are relatively same in both chosen bank systems. Clients have to be citizens of country where they apply for a loan. In case of Royal Bank of Scotland it is enough to be the citizen of European Union. Clients in both banks have to be at least 18 years old in order to get the loan. Clients have to prove their income, i.e. employer who is acceptable by bank. In the third case we are going to assess orientational information to mortgage loan that are published on the webpages of the chosen banks. In case of conventional bank, Royal Bank of Scotland, client can use mortgage calculator where he enters the amount of purchase price of property, the amount of their own resources, repayment period and consequently there is orientational interest rate and the height of monthly installments generated.

In case of Al Rajhi Bank, client can use the table from which on the basis of his income finds out the amount of loan and monthly installment. Contrary to conventional banking, the amount of monthly installment is fixed during the whole repayment period. According to our calculations on mortgage loan from Royal Bank of Scotland with 20-year repayment period, client will pay the bank 47% resp. 53% more on interests. In case of the loan from Al Rajhi Bank with 20-year repayment period, client will pay the bank 70% more on fees and extra charges. In 30-year repayment period, client of Royal Bank of Scotland will pay to bank 74% to 84% more on interests and client of Al Rajhi Bank will pay on fees and extra charges 89%.

6. CONCLUSIONS

We assume that Islamic banking system can represent in the future the big competitor for conventional banking system. Nowadays, many European conventional banks are opening branches that specialize exclusively on providing bank products in accordance with Islamic law *šarī'a*. Even, if we want to meet with Islamic banking, we do not need to go far as products of Islamic banking are provided also by one of Austrian banks. However, currently the majority part of clients of Islamic banks are mainly Muslim clients. We suppose that the main reason for the minor interest of people, not professing Islam is the fear from unknown. However, if Islamic banking is communicated to public more and the number of Islamic banks or branches providing Islamic bank products raises, it is probable that it will also address non-Muslim clients. The products of Islamic banking system can be interesting for non-Muslim clients mainly for its transparency. However, the fact that Islamic banking is based on the principles and rules of Islamic law and religion can be an advantage but on the other side disadvantage for the development of Islamic banking system. We consider as the advantage the fact that people professing the second most widespread religion, Islam, will prefer financial institutions providing products and services that are in accordance with their faith. The disadvantage is that keeping rules and principles stemming from Islamic law and religion can restrict the ability of Islamic banks to charge high prices what can cause lower market power of Islamic banks.

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IS HYBRIDAZATION A RESPONSE TO THE INTERNATIONALIZATION OF HRM IN MOROCCO?

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ABSTRACT

The multinational corporations (MNCs) are exposed to different cultural and institutional environments. To ensure their competitiveness, they need to exploit the knowledge of the subsidiaries in a global framework. This article attempts to present the concept of hybridization as a response to the internationalization of human resource management (HRM) within MNCs. To achieve this goal, an exploratory investigation was carried out in eight subsidiaries of multinationals established in Morocco as well as four Moroccan companies. Interviews focused on four HRM practices (recruitment, compensation, performance evaluation and career management). The empirical data analyzed show that hybridization process may depend on a range of cultural and institutional factors, the stakeholders and the type of HRM practices. Findings highlight the importance of understanding the hybridization of HRM practices, its process and its assets by the parent company in order to anticipate the problems raised by the transfer of HRM processes.

Keywords: *Best practices, Hybridization, Multinational Corporation, Stakeholders, Transfer*

1. INTRODUCTION

Recent work in international human resource management (HRM) has examined the reasons, advantages and disadvantages of the choice between both possible forms of HRM practice's transfer between a mother company and its subsidiary: standardization and adaptation (Brewster et al., 2004; Hall & Soskice 2001, Gunnigle et al., 2002; Meyer, 2002; Rosenzweig & Nohria, 1994; Sorge, 2004). First, the genesis of the HRM practices is done within the mother company (Pfeffer, 1998) and must inexorably be transferred and applied as they stand into foreign subsidiaries (Fenton-O'Creevy, 2003). Second, organizations should take into account the local context (Milano et al., 2002), its cultural specificities (Child, 2000; D'Iribarne, 2003; Hofstede, 2003; Myloni et al., 2004) and institutional specificities (Gooderham et al., 1999; Gunnigle et al., 2002; Scott, 2001) while implementing the employee management strategy. This diversity of environments may put MNCs under a continuing obligation to arbitrate between the need of being both global and local (Bartlett & Ghoshal, 1998). Therefore, foreign subsidiaries may suffer from a dual pressure resulting from the conflict between practices in the parent company's country and those in their own country (Boxenbaum, 2006; Hillman & Wan, 2005; Hotho, 2009; Kostova & Roth, 2002; Suchman, 1995; Xu & Shenkar, 2002; Xu et al., 2004). Kostova and Roth (2002) define the concept of "institutional duality", which highlights the double pressures faced by subsidiaries: on the part of the environment in which they are located (legal, national, regional, etc.), and organizational pressures from their parent companies. This "institutional duality" consists in satisfying both the isomorphic needs of the headquarters which may push the subsidiaries to adapt to its specificities and those of their local institutional environment (Flood et al., 2003).

In addition, DiMaggio and Powell (1983) and Scott (1995, 2001) assert that organizations experience three types of isomorphic pressures (coercive, mimetic and normative). Flood et al. (2003), Gooderham et al. (1999), Kostova and Roth (2002) and Livian (2004), state that a hybridization of managerial practices may take place in order to respond effectively to both global and local requirements. Indeed, practices from the parent company can be combined with locally developed tools and lead to a new twist (Myloni et al., 2004). Boyer (1998) asserts that hybridization is a consequence of interactions between various systems in different contexts. This concept goes beyond the adaptation of practices and takes the form of several transformations. It combines systems that are very different from each other, with regard to various factors: political, cultural and institutional systems. Hybridization can therefore be defined as the reformulation of practices during their transfer in order to integrate easily in the context of the subsidiary (Boyer, 1998). Indeed, it may be considered as the product of interactions between several systems in different contexts, so it is a good way to satisfy the institutional duality of the subsidiary. Moreover, it takes into account the idea of transformation and change of the original practices' nature. As a result, some elements of the transferred practices may be safeguarded and others abandoned for local tools. This abandon of some elements modifies the structure of the practice and makes it more compatible with the new context (Boyer, 1998). The author argues that a multinational cannot master the hybridization process since it cannot predict how long it will take to achieve hybrid practices. Boyer's study is one of the deepest research on hybridization. It has the merit of indicating that hybridization process is dynamic, non-controllable and dependent on the will of various stakeholders. These stakeholders play a very important role in the hybridization process. The interaction between stakeholders, and those between stakeholders and their environments influence the process of hybridization (Djelic, 1998). The subsidiary managers may react in different ways to the implementation of HRM practices transferred (Gamble & Huang, 2009; Yahiaoui, 2007). They also could have a different point of view from managers of the local context with regard to their personal experiences abroad : study, work, parent company training (Anakwe, 2002). Furthermore, DiMaggio and Powell (1983) provide a key concept which is the "organizational field"; it is presented as the field of institutional life and is composed of various organizations: key suppliers, resource and product consumers, regulatory agencies and competing organizations. The subsidiary's organizational field includes the stakeholders as parent company HR, subsidiary HR, employees, etc. whose role is stressed by Djelic (1998), government, labor laws, local culture, etc. as emphasized by Boyer (1998), and lastly, the relation amongst parent company and subsidiary, as pointed out by Kostova (1996). This field is useful in that it allows focusing on all the actors that form a system and work in a similar way, beyond the only economic market (Yahiaoui, 2014). Research on HRM hybridization practices within MNCs in North Africa is limited (Yahiaoui, 2014) with the exception of Yahiaoui's extensive study of the transfer of HRM practices from French MNCs to their subsidiaries in Tunisia (Yahiaoui, 2014). This paper attempts to realize a similar study in Morocco in order to stress the importance of understanding the hybridization of HRM practices in North Africa, its process and its assets by the parent company to anticipate the problems that could be raised by the transfer of these HRM processes.

2. RESEARCH METHODS

The exploratory study that was conducted focuses on HRM policies implemented by subsidiaries belonging to multinationals of different nationalities located in Morocco. Our objective is to describe and understand the modalities of international HRM for human resources directors (HRDs) and / or general managers (GMs) and to make sure about the existence of a hybridization of transferred HRM practices by MNCs to their subsidiaries in Morocco.

Our investigations were conducted from January to March 2018 with eight Moroccan subsidiaries of multinational companies (five French, one American, one Belgian and one Swiss) and four Moroccan companies. For confidentiality reasons, these organizations are named as follows: E1, E2, E3, E4, E5, E6, E7, E8, E9, E10, E11 and E12. Table 1 provides a summary presentation of this sample. These companies are global leaders within their fields. We purposefully chose to meet subsidiaries with different geographical origins to explore a wider range of value systems. The decision to meet Moroccan companies gives us the opportunity to describe their interest in HRM practices imported from abroad and have an insight into the values and institutional codes on which the local HRM practices are based. The qualitative research methodology seemed the most appropriate as our research questions are of the type "why?" and "how?" (Yin, 1994). The interview guides were developed following the concepts identified in the literature review and cover four key areas of HRM: recruitment, compensation, performance evaluation and career management. These practices were chosen as they are among the most affected by both institutional/structural and cultural dimensions (Ayca, 2005) and the most studied in international research (Yahiaoui, 2007). In the framework of the semi-structured interviews, which lasted between one and two hours, we were able to interview ten executives from the HR function and / or GMs. The interviews were recorded, transcribed and their content analyzed by themes in order to infer the most relevant conclusions and analyses keys for our exploratory case study.

Table 1: Presentation of the study sample

Designation	Country of origin	Sector	Workforce	Title of Interviewees	Number of expatriates
E1	France	Cosmetics	155	HRD + Product Manager	5
E2	France	Aerospace	400	HRD	4
E3	France	Telecommunication	1200	HRD + Legal	4
E4	France	Machining	50	GM	3
E5	France	Banking	3200	HRD + PR & Event Manager	10
E6	USA	Consulting	72	HRD	0
E7	Belgium	Food	180	HRD	2
E8	Switzerland	Analysis, control, certification and training	420	HRD	0
E9	Morocco	Construction	40	GM	-
E10	Morocco	IT	900	HRD	-
E11	Morocco	Electrical panel design	90	HRD + Marketing Manager	-
E12	Morocco	Large retailer	1600	HRD	-

3. FINDINGS

As announced, our main focus was on four HRM practices: recruitment, compensation, performance evaluation and career management. The next section, describes these HRM practices within our study sample.

3.1. Recruitment

It is noticed that new technologies are used by the totality of our sample. Indeed, all HRDs met testify that internet streamlined the process and make it much easier. Some multinationals follow the same recruitment process for all employees regardless of the status, sometimes at a global level (E1, E2, E6 and E8); while others use different methods for recruiting executives and support staff (E3, E4, E5, E6 and E7). Two subsidiaries distinguished at the global level in terms on recruitments as they use the group's best practice: one recruiting day for all their candidates (E2 and E6), this practice is accepted by Moroccan candidates without any resistance. In addition, the use of psycho-technical tests may be reserved to highest positions candidates. Mother companies are systematically involved in the decision making process for hiring high-level staff (E5, E6, E7 and E8). The other recruitment processes are delegated to the managers of the subsidiary.

“The recruitment of the top management is systematically supervised by the mother company which gives its opinion and which looks at the processes and the way in which the steps take place. A candidate for a management position meets systematically with the HR directors of the head office and that of the zone.” (E5)

Moroccan companies met follow a so-called "standard" recruitment process: selection of candidates through study of their CVs and job interviews (E9, E10, E11 and E12). Besides, some of them prefer using relational networks or recruiting firms for senior executive's positions (E10 and E11). It is important to notice that for these positions, preference is necessarily given to candidates with French “Grandes Ecoles” diplomas.

“Recruitment for key positions can be significant by cooptation, when we know a given person, there will be either direct contact or via a recruiting firm.” (E11)

All companies in our study sample prefer to recruit young graduates' candidates, so they could easily adhere to the corporate culture (E2 and E6). Thus, a strong presence is noticed at the job fairs (E2, E5 and E8) and some companies organize their own recruiting events (E6). The companies also favor internal mobility and publish ads internally before starting the external recruitment process. An integration plan is set up to welcome new entrants in the majority of companies investigated (E1, E2, E3, E5, E6, E7, E8, E10, and E11). In addition, considerable seniority is observed among Moroccan employees (between 5 and 10 years).

3.2. Compensation

Multinationals generally determine their employees' salaries by increasing their previous ones by an average of 30% (E1 and E7), and / or by referring to studies carried out by Moroccan or international firms (using the Mercer or Hays surveys). They also could offer higher salaries compared to the market. However, the payroll budget is defined in collaboration with headquarters in all the subsidiaries of our study sample. For expatriates and senior executives, their salaries are fixed by the parent company.

“We have a weighing system made in collaboration with the parent company and linked to the Mercer method. It is a tree system that takes into consideration different dimensions of the position: management, business, specialty, experience, etc. Therefore, we have little flexibility within this grid in setting new hires' salaries” (E8)

Bonuses are awarded based on the merit in only four subsidiaries in our sample (E1, E2, E6 and E7). In the rest of the companies, bonuses are awarded to executives according to the profit of

the subsidiary and that of the group. On the other hand, when it comes to support staff, bonuses are mostly based on regular attendance. In some companies, the bonus amount is predetermined in work agreement for the executives (E8, E9 and E11). Moroccan companies of our sample are also making great efforts to be competitive. However, they put forward the fact that the negotiations are realized mainly in terms of package (salary, bonuses, benefits ...) and no longer in terms of fixed salary. These companies habitually give two types of bonuses: the first one is collective and depends on the company's profit: it is distributed by each manager to his own team (E9 and E12). The second one is awarded according to religious holidays, seniority (E12), births, start of the school year, etc. The "13th month" - that is an extra salary at end of the year - is a systematic bonus in these companies.

"The end-of-year bonus is distributed to the department heads, who then distribute it to their subordinates after discussion with the HR. This bonus intended to highlight and encourage teamwork." (E9)

3.3. Performance evaluation

Managers interviewed encourage the performance evaluation practice which exists with differences in criteria and objectives (performance, discipline, promotions, renewal of fixed-term contracts ...). In some companies, the reviews are conducted twice a year between the employee and his/her manager. First, to measure the progress realized and second to discuss the achievements (E1, E2, E3 and E9). In some subsidiaries of our study sample, the evaluation depends on types of employees: two people reviews a year for the executives and only once a year for support staff (E6). Expatriates and senior executives are evaluated by the parent company. In addition, some companies encourage the feedback, so employees can request an appointment with their managers at any time (usually at the end of each project) to discuss the development needs (E1, E6 and E9). These meetings are still difficult to set up due to managers' busy schedules.

"We have two evaluation interviews. First, in the middle of the year in order to discuss the achievements and HR matters. Second, at the end of the year to discuss the achievements and address future objectives. It's also a good moment to talk about training needs, mobility and other stuff exclusively in relation with employee's career." (E1)

Local HRD support managers preparing and conducting evaluation interviews. In some companies, local HRD attends the interviews to make sure that they are well conducted (E11 and E12). Indeed, evaluation review may be a difficult exercise for some managers who do not want to alter their interpersonal relationship with their subordinates. Finally, it was noticed that evaluation review is a new practice in Morocco as it is not mandatory by Moroccan law.

3.4. Career management

All the multinationals met use career management tools such as: succession plan, promotion plan and mobility. In some of them, the career management process is open at the international level: in particular, we met with a Moroccan executive who has been expatriated abroad (E1). Professional trainings are encouraged or even obligatory (E1 and E6) and Training processes could be given to employees identified as high potential employees thanks to skills assessment: in the companies' headquarters, in other offices abroad, etc. (E1, E3, E5 and E6). These trainings may play a key role in the hybridization process as they may influence the employees in the sense of Anakwe (2002). On the other hand, some managers may put people from their personal network in high position.

However, vertical mobility is often dependent on the size of the subsidiary and the availability of positions. Subsequently, promotion opportunities are limited.

“People often complain about not being able to access senior positions. They all consider mobility to be vertical only, but are not so interested in horizontal mobility.” (E8)

It was observed that decisions regarding career management are taken by local HRDs and / or GMs, the parent company does not intervene.

4. DISCUSSION & CONCLUSION

The data analysis of this exploration shows a willingness to unilaterally transfer HRM practices from the parent companies to their Moroccan subsidiaries in order to maintain a certain coherence with the group's vision. Expatriates are actively involved in this operation. The subsidiary's Moroccan HR deals with the application of transferred practices. These practices, influenced by the institutional specificities of the parent company, are transferred directly by the parent company to its subsidiary in various ways: some are imposed on employees by their managers; others are communicated and explained through workshops, annual meetings and trainings. However, certain practices used in the subsidiaries of multinationals require an adaptation to institutional specificities especially with regards to the Moroccan labor law such as the limitation of the probation period, the limitation of the use of the fixed-term contract in certain specific cases, the legal minimum wage, etc. It is the combination of these two types of practices that creates hybrid HRM practices (Yahiaoui, 2007). We also noticed that the parent company would delegate the responsibility of some decisions to its subsidiary and does not intervene in all procedures such as support staff recruitment, the setting of objectives and bonus amounts, etc. This delegation may cause the hybridization of practices which is due to changes made by local actors to the transferred procedures. Indeed, this exploration allowed us to become aware of the role played by other actors such as unions, managers, employees, etc. (Gamble & Huang, 2009; Yahiaoui, 2007). For example, candidates graduated from foreign schools may react differently to the foreign HRM practices (Anakwe, 2002) and then play a different role than Moroccan executives while implementing them. Additionally, the integration process of the new entrants in multinationals may be used as a way for transferring the MNC's HRM practices to these candidates. It would therefore be wise to complete this study with interviews with these actors in order to deeper explore the subject. Moroccan culture also affects the hybridization process: the collectivism of the society (Hofstede, 1980, 1983) allows companies to give collective bonuses, the importance of social status make employees more interested by vertical mobility than horizontal and Moroccan employees' high average tenure may demonstrate that loyalty occupies an important place within them. Yet, the practices cannot be transferred unchanged. The concept of hybridization thus appears as a real answer to the problem of transfer since it takes into account differences between countries. Hence, regulations, institutional pressures and local specificities are mixed and combined. A better understanding of the hybridization of HRM practices, its process and its assets allows the parent company to anticipate the problems raised by the transfer: incomprehension, resistance, etc. In addition, hybridization is a concept that is based primarily on the involvement of actors and their willingness to readapt the practices of multinationals. Therefore, we advise parent companies to strengthen communication and contact with their subsidiaries around HRM practices and their modes of application. Note that, given the size of the panel and the nature of the interviewees (HRDs and / or GMs), the analysis presented cannot be extended and extrapolated to the entire population of multinationals present in Morocco. Consequently, the interpretations must not exceed the exploratory character of the study.

However, this study enabled us to highlight HRM practices' hybridization process in Morocco and the importance of stakeholders' responsibility in their implementation.

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INVESTMENT CLIMATE, OUTWARD ORIENTATION AND MANUFACTURING FIRMS' PRODUCTIVITY: NEW EMPIRICAL EVIDENCE

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ABSTRACT

Drawing on the World Bank Enterprise Surveys (WBES), we revisit the link between investment climate and firms' productive performance for a panel of enterprises surveyed twice in 70 developing countries and 11 manufacturing industries. We take advantage of this time dimension available for an increasing number of economies, to tackle the endogeneity issue which has been seen as a problem in previous studies. We also use pertinent econometric techniques to address other biases inherent in the data, in particular measurement errors and multicollinearity. Our results reinforce previous findings by validating, with a larger than usual sample of countries and industries, the importance of a larger set of environment variables as well. We show that infrastructure quality (Infra), information and communication technologies (ICT), skills and experience of the labor force (H), cost of and access to financing (Fin), security and political stability (CrimePol), competition (Comp) and government relations (Gov) contribute to firms' and countries' different performances. The empirical analysis also illustrates that firms which chose an outward orientation have higher productivity levels. Nevertheless, outward oriented enterprises are, at the same time, more sensitive to investment climate limitations. These findings have important policy implications by showing which dimensions of the business environment, in which industry, could help manufacturing firms to be more competitive in the present context of increasing globalization.

Keywords: *Investment Climate, Outward Orientation, Total Factor Productivity, Manufacturing, Firm Survey Data*

1. INTRODUCTION

Developments in the economic literature have emphasized the importance of a business-friendly investment climate for robust economic performance (World Bank, 2004). At the macroeconomic level, empirical studies have used cross-country analysis to highlight the critical role of good governance and institutions (Acemoglu et al, 2001 ; Engerman and Sokoloff, 2002). More recently, the emergence of enterprise survey data has led to a growing literature that evaluates the determinants of firms' performance (see Dethier et al., 2008, for a review). By adding a micro economic perspective that captures firms' main constraints, this new approach strengthens the empirical evidence which may be used to formulate policy recommendations. Investment climate can be defined as the "policy, institutional, and regulatory environment in which firms operate" (World Bank, 2004). A main hypothesis is that a good investment climate facilitates the functioning of markets and reduces the transaction risks and costs associated with investing in, starting, operating, and closing down a business. It creates new opportunities (for example through trade or access to technology) and put competitive pressures on firms. The World Bank (2004) also reports that a better business environment contributes to the effective delivery of public goods necessary for productive business.

In the literature, firms' outward orientation is also a well-accepted key source of productive performance. Foreign exposure is seen as increasing competition for domestic and exporting firms, encouraging them to invest and be more productive (Balassa, 1978; Frankel and Romer, 1999). Access to foreign capital goods is source of productivity, through the transfer of technology from advanced economies (Goldberg et al, 2009 and 2010; Topalova and Khandelwal, 2011). This channel is particularly important for developing countries, where new technology is relatively scarce, resources are limited, and firms depend on high-quality imported inputs. In addition, international competition is a source of learning as world markets expose firms to more advanced knowledge (Coe and Helpman, 1995; Bernard and Jensen, 2004). The World Bank Enterprise Surveys (WBES) collect data on firm-level inputs, outputs and characteristics, as well as on a large variety of quantitative and qualitative (perception-based) indicators of the business environment. These standardized surveys of large and random samples of firms allow the comparison of firm productive performance by sector and across countries. They also provide information to evaluate the impact of the business environment on firms' performance. In a context of increasing pressure from globalization, the WBES can be useful tools for identifying key obstacles to firms' competitiveness and growth. As such, they can inform the design of policy reforms. The objective of this paper is to accelerate progress in that direction. Drawing on the WBES, this paper analyzes the relationship between firm-level investment climate and total factor productivity (TFP) for 11 manufacturing industries in 70 developing economies (see Annex-1 for the list of countries). Although a number of studies have recently analyzed the impact of the investment climate on firms' performance, this paper makes a comparison using a much bigger sample of firms, sectors, and countries. A contribution of our research is also to go a step beyond what has been done by including the time dimension to tackle the endogeneity issue stressed in previous studies. For an increasing number of countries, a sub-sample of firms has been surveyed twice, which makes data available on a panel form for a substantial number of firms, sectors, and economies. This time dimension allows the use of more pertinent econometric techniques to check the robustness of previous findings. Another new facet of our work consists of addressing other data limitations, which have led to doubt being cast on the conclusions of previous works. This is the case for the perceived unreliability of the firms' answers. It is particularly true for the subjective questions, for which entrepreneurs may have different perceptions, especially when in different regions or countries. Firms may also be tempted to attribute their inefficiencies to external factors. To tackle this issue, we build several models to predict the firm's answer to the survey's questions. This process, which helps to address measurement errors and endogeneity issues all together, has rarely been used in the literature, especially in the systematic and extended way that we do in this research. Another contribution to the literature in this paper consists to integrate in the analysis a large number of investment climate variables. Instead of arbitrarily considering a few indicators, like in most empirical studies, we summarize the information in a limited number of aggregated variables using the Principal Component Analysis (PCA) methodology. The advantage of this approach is that it takes into account more dimensions of the business environment, without encountering problems of multicollinearity when estimating its impact on firm performance (Mitra et al., 2002). In line with the literature, we define 7 composite indicators: infrastructure quality (Infra), ICT availability (ICT), human capacity (H), financing ability (Fin), government relations (Gov), security and political stability (CrimePol), and competition (Comp). Most of these indicators are found to be significantly linked to firm-level TFP. This constitutes an interesting outcome, due to the larger than usual number of investment climate factors validated by the data. In addition to the business environment, we highlight in this work the productive role of firms' foreign exposure evaluated through several indicators: export status (X), foreign presence in firm capital (ForeingK), quality certification (Cert), and the use of licenses from foreign companies (Lic).

All these dimensions are found to positively influence firm productive performance in most manufacturing industries. The paper is organized as follows. In the second section, we present our indicator of firms' performance, the total factor productivity (TFP), the average of which is compared by industry across countries. Based on the literature, section three introduces the investment climate composite indicators and relates them to the average firms' TFP. In the fourth section, we investigate the relationship between firms' TFP and their outward orientation and business environment. The robustness of our results is tested by considering various models and specifications developed to correct the bias linked to the data. The last section concludes with our main findings and their policy implications.

2. FIRM-LEVEL TOTAL FACTOR PRODUCTIVITY (TFP)

To calculate the firm-level total factor productivity (TFP), the Cobb-Douglas technology is the one which is most often used because the elasticity of production to inputs is easy to observe and interpret. The model we estimate is as follows:

$$\text{Log}(Y_{i,j}) = c + \alpha \text{Log}(K_{i,j}) + \beta \text{Log}(L_{i,j}) + \varphi_1 \text{Country}_{i,j} + \varphi_2 \text{Reg}_{i,j} + \varphi_3 \text{Year}_{i,j} + v_{i,j} \quad (1)$$

with Y : value added, K : capital, L : labor, c : intercept, Country_i : country fixed-effect, Reg : region fixed-effect, Year : year of survey, $\alpha/\beta/\varphi_{1 \text{ to } 3}$: parameters to be estimated, $v_{i,j}$: error term and i/j : observation/country index, respectively.

The country and region dummy variables aim to capture the effect of country and region specific factors, such as natural resources, national and regional institutions, trade policy, macro or political instability. Taking into consideration these fixed-effects results in a reduction of the omitted variable bias when estimating the production functions. This in turn contributes to better estimations of TFP. Firm-level production functions are estimated as in equation (1) at the sector level using the reasonable assumption that an industry-based technology makes it easier to attribute the residual to differences in productivity. Value added is calculated as the difference between firm total sales and total purchase of raw material, excluding fuel.¹ All values are taken in current US dollars. We make the hypothesis that firms are price takers, and purchase raw materials at world price. This appears to be an acceptable assumption for manufacturing industry which is exposed to international competition. In this case, the prices in US dollars of production and intermediary consumptions are comparable across countries. K_i is the firm gross value of property, plant, and equipment, and L_i is the number of firms' full time permanent workers. Firms' TFP is then calculated as the residual of the estimated firms' production function by industry as follows:

$$\text{TFP}_{i,j} = \text{Log}(Y_{i,j}) - \alpha \text{Log}(K_{i,j}) - \beta \text{Log}(L_{i,j}) \quad (2)$$

Table 1 displays the firm-level total factor productivity (TFP) country averages by sector. For a given sector, these averages are expressed in percent, relative to the country where firms show the highest performances (for which the value is 100 in the table).

Table following on the next page

¹ This is the proxy usually used in the literature. Because of the absence of time dimension on an annual basis; it is not possible to evaluate the stock variation that would allow calculation of the real intermediate consumption during the year.

Table 1: Country Average of Firm-Level Total Factor Productivity by Industry (in % of country with the most productive firms)

Country	Manuf	Food	Textile	Garment	Leather	Wood Furniture	Chemicals Petroleum	Rubber Plastic	Non-Metal Basic Metal	Metal Products	Machinery
Angola	86	80		81		90			95	85	
Botswana	84	79	84	71		95			93	81	
Ethiopia	78	80	83	72	75	80	75	74	81	80	
Kenya	80	80	78								
Mali	78	78		74						75	
Nigeria	53	38		64		45			27		
Senegal	83	85		78	81	80	83		80	78	
South Africa	98	91		99		100	96	97	100	92	100
Tanzania	80	76		76		97	80	84	81	75	
Uganda	75	71				78	78		79	72	
Indonesia	79	72	79	78		79	78	78	75	81	
Mongolia	78	78							69		
Philippines	86	82		77		86	86	93	82	81	
Timor	80	71				87					
Vietnam	83	85		77		80	86	90	82	82	82
Belarus	82			75		84					
Macedonia, FYR	89	90	84	82	80	93				93	
Moldova	84	81		75						96	
Turkey	100	100	97	100			99		98		
Ukraine	80	84		75					76		86
Uzbekistan	77	76	82				68		68		
Russian	92	87		86			91			92	95
Argentina	98	94	100	97	100		95	97		97	100
Bolivia	86	82	86	83			88				
Brazil	88	66	86	88	92	95	100			80	97
Colombia	91	88	91	91	99		91	97		88	
Chile	99	94	99	96	63		61	100	86	100	78
Ecuador	91	89		79			90	96		90	
Guatemala	86	84	89	82							
Mexico	91	86	86	91			87		84	85	96
Paraguay	89	88		95			85	93	80		
Peru	90	92	89	88			90				
Uruguay	96	94	91	90			95	97			
Egypt	80	75	76	82		77	83	84	76	72	85
Morocco	87	90	89	78	92		92			90	
Yemen	76	80		76		64			70		
Bangladesh	74	68	75	76	82		70				75
Nepal	78	82	68			78	84	76	77	72	
Pakistan	85	89	81	76	82	83	77		78	89	

Source : Authors' calculations

Note: Country averages of firms' TFP are expressed in percent, relative to the country where firms show the highest performance (for which the country average is 100).

The analysis reveals a relatively stable ranking of countries across industries. Firms in most Latin American economies perform, on average and in several industries, at the highest levels of TFP. This result is consistent with these economies' higher level of development than most of the other economies in the sample. In the African sub-continent, South African firms appear to be the most productive in most sectors and at a level comparable to the best performing firms

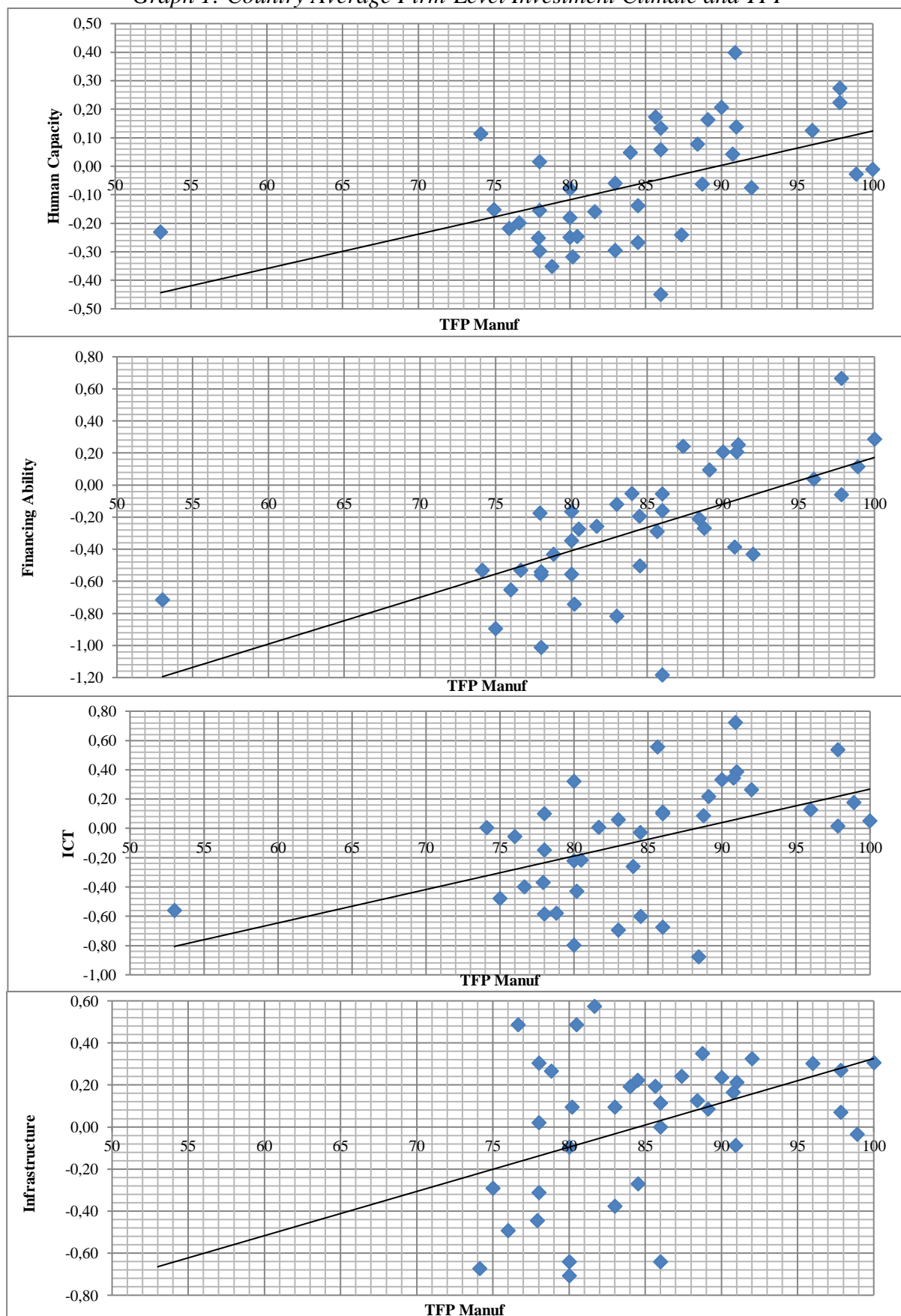
in Latin America. This result does not come as a surprise either, and confirms some earlier findings (see Kinda et al, 2014). South Africa, however, is an exception, and no other African firms/ countries in our sample appear able to compete at the international level. In Eastern Europe and Central Asia, like in most of African countries, the country sample size is small in some sectors. This makes the comparison with Latin America difficult because the number of observations for the Latin American countries is bigger. Nevertheless, the leader of Eastern Europe and Central Asia appears to be Turkey, with an average level of firms' performance comparable to the one of the best performers in Latin America. This result also fits with intuition if we think about Turkey's development level, although we should remain cautious because there is also less information for Turkish firms. As for the rest of the sample, firms' productivity look quite low in most of the Middle-Eastern and North African (MENA), South-Asian (SA) and East-Asian (EA) economies, with the exception of Morocco, whose firms perform quite well in some sectors (food, leather, chemicals), at a level quite close to that of the best performing firms. This result also confirms previous findings (Kinda et al, 2014). It is necessary to remember, however, that for these 3 regions, the number of countries represented in the sample is small. In addition, for South East Asia (SEA) and MENA, the wealthier countries are not represented in the sample.

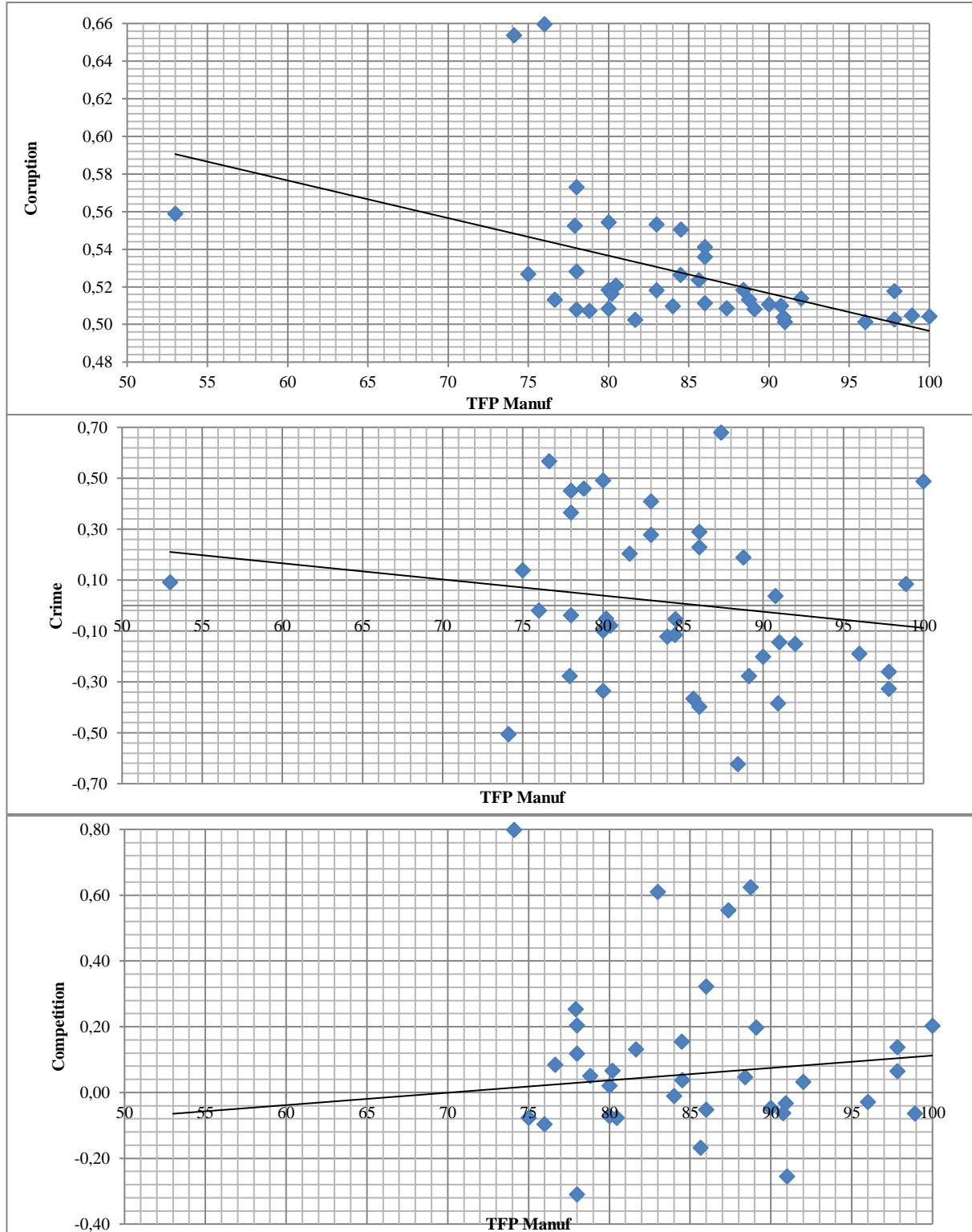
3. MEASURING FIRM-LEVEL INVESTMENT CLIMATE

In the surveys, there are multiple indicators covering a similar theme, and their correlation is high. The solution usually adopted in the literature consists of restricting the analysis to a limited number of them. This solution has the disadvantage of accepting a potential omitted-variable bias. It also poses the question of whether or not the selected variables provide a representative description of the investment climate. The solution of using a composite indicator has the interest of obtaining more accurate estimates, in addition to including more dimensions of the business environment. Aggregation is particularly suitable in our case, since we aim to incorporate in the analysis an as large as possible set of variables not typically considered in the literature to determine which dimensions are the most detrimental. Although different methods of aggregation exist, the Principal Component Analysis (PCA) aggregates basic indicators in a more rigorous way than a subjective scoring system (Mitra et al., 2002). Initial variables were selected on the basis of being available for the countries of our sample, as well as capturing the different key dimensions of the firm business environment. Another element of choice was to add quantitative indicators to qualitative (perception-based) ones, to get a better picture of the firm investment climate in each industry and country. Based on the literature, we defined 7 categories of firm business environment: infrastructure quality (Infra), information & communication technology (ICT), human capacity (H), financing ability (Fin), government relations (Gov), security & political stability (CrimePol) and competition (Comp). (See Annex 2 for details on these indicators). All the aggregated indicators were generated at the sector level, thus defining the specific investment climate of each industry. In total this resulted in 77 indicators (7 for each of the 11 sectors). Analysis usually treats investment climate as an exogenous determinant of firm productivity. This is not always the case. This is particularly true for perception-based variables for which firms are asked to position their answer on a given scale.² The perception of the scale may be different across firms, industries, regions and countries. Besides, when answering the questions about their environment, firms may be influenced by the perception they have of their own performance and attribute their inefficiencies to external factors. Also, high-performing firms may be proactive in reducing their investment climate constraints, for example by working with the authorities to limit inspections, or secure more reliable power supplies.

² In the case of obstacles to operation for example, firms are asked to quantify their constraints on a scale from none to very severe (0 to 4).

Graph 1: Country Average Firm-Level Investment Climate and TFP





Note: Country averages firms' TFP are in percent, relative to the country where firms show the highest performance (see Table 1). For all graphs, investment climate indicators can be read as a capacity. Negative values are due to the aggregation methodology and do not have any economic interpretation. A smaller value means that the corresponding business environment dimension is less favourable in that country than in another one with a higher value of the same indicator. Corruption is a proxy of government relation (Gov). See Annex 2 for the definition of the composite indicators.

We addressed this issue by applying different models to predict the firms' answers to the surveys' questions. The predictions were made as linear combinations of the selected exogenous variables, as well as based on probit, logit, or multinomial specifications³. These predictions were used as an alternative to firms' answers when building the aggregated indicators, what has also the advantage of correcting for measurement errors. We also took advantage of the time dimension of the data to address endogeneity in another way. We replaced the second survey's observations by the first one, then, by the first survey's predicted value as in the previous step. Each time, we ended up with different aggregated indicators, that we introduced in turn into our production functions in order to check the robustness of our results. As an example, we present the results for the 7 investment climate composite indicators calculated for the whole manufacturing industry from the observed initial variables. We compare each indicator's country average to the same country average firms' TFP (see graph 1). Aggregated indicators are interpreted as capacity. Negative values are due to the aggregation method and do not have any economic interpretation⁴. A smaller value means that the business environment is less favorable than in another country/sector. These show that a higher firm productivity is on average associated with a better business environment.

4. EXPLAINING FIRM-LEVEL TOTAL FACTOR PRODUCTIVITY (TFP)

In this section, we seek to explain the differences in productivity level across firms and countries (see section 2). The one-step procedure is used to simultaneously estimate the production technology and the factors influencing firms' TFP (see Bastos and Nasir, 2004). Although several factors may explain these differences, the business environment is probably one of them (see section 3). This hypothesis is tested through different specifications aimed at corroborating our findings. To reduce multicollinearity, we use the investment climate composite indicators in which we substitute to the observed variables, their predicted value. We also use as instrument of the second survey observations, the first survey answers, as well as the first survey predictions (see section 3). In addition to correcting for measurement errors, the use of predictions provides a way to deal with investment climate endogenous variables. Our empirical model explains firm-level total factor productivity (TFP) by regressing, for each of the 11 branches and also for total manufacturing, the logarithm of the production factors (K , capital and L , labor), various plant characteristics and the investment climate composite indicators, on the logarithm of the value added (Y). The equation is as follows:

$$\ln(Y_{i,j}) = \alpha \ln(L_{i,j}) + \beta \ln(K_{i,j}) + \gamma_1 age_{i,j} + \gamma_2 Cert_{i,j} + \gamma_3 Lic_{i,j} + \gamma_4 Foreign_{i,j} + \gamma_5 Export_{i,j} + \varepsilon_1 Infra_{i,j} + \varepsilon_2 ICT_{i,j} + \varepsilon_3 H_{i,j} + \varepsilon_4 Fin_{i,j} + \varepsilon_5 Gov_{i,j} + \varepsilon_6 CrimePol_{i,j} + \varepsilon_7 Comp_{i,j} + \varphi_1 Reg_{i,j} + \varphi_2 Year_{i,j} + c + v_{i,j} \quad (3)$$

with Y : value added ; K : capital ; L : labor ; age : firm's age (in years) ; $Cert^*$: quality certification ; Lic^* : foreign licensed technology ; $Export^*$: export status; $Foreign^*$: foreign ownership of capital ; $Infra$, ICT , H , Fin , Gov , $CrimePol$, $Comp$: investment climate composite indicators (see Annex 2 for their definition); Reg : region fixed-effects, $Year$: year of survey, c : intercept, v : error term, $\alpha, \beta, \gamma_1 \text{ to } 5, \varepsilon_1 \text{ to } 7, \varphi_1, \varphi_2$: parameters to be estimated, i/j : observation/country index, respectively. *Binary variables.

The business environment indicators reflecting a capacity they are expected, as firms' characteristics, to positively affect firm performance.

³ We apply linear regressions to continuous variables, probit, or logit model to binomial quantities, and ordered probit or logit models to multinomial observations. All the business environment data were instrumented by the same set of independent (exogenous) variables.

⁴ Initial variables are standardized for the purpose of the PCA methodology.

*Table 2: Production Function with Predicted Value of Firms' Business Environment^{^^}
(Dependant Variable: Log of Firms' Value-Added)*

Manufacturing	(1)	(1')	(1'')	(2)	(2')	(2'')	(3)	(3')	(3'')
L	0.706*** (29.50)	0.679*** (25.23)	0.734*** (29.02)	0.712*** (29.58)	0.677*** (25.11)	0.743*** (29.12)	0.686*** (26.96)	0.659*** (23.38)	0.714*** (26.96)
K	0.249*** (20.24)	0.249*** (20.24)	0.251*** (20.32)	0.246*** (20.01)	0.246*** (20.03)	0.248*** (20.12)	0.245*** (19.96)	0.245*** (20.00)	0.247*** (20.08)
Year	-0.012* (-1.74)	-0.005 (-0.70)	-0.016* (-2.28)	-0.02** (-2.77)	-0.01 (-1.34)	-0.024*** (-3.33)	-0.025*** (-3.43)	-0.014* (-1.87)	-0.031*** (-4.18)
Age	0.0018* (2.05)	0.0022* (2.51)	0.0015* (1.75)	0.0016* (1.82)	0.0021* (2.48)	0.0013 (1.48)	0.0015* (1.74)	0.0021* (2.45)	0.0012 (1.35)
QualityCertification[^]	0.211*** (4.95)	0.214*** (5.01)	0.223*** (5.23)	0.201*** (4.73)	0.204*** (4.81)	0.215*** (5.08)	0.194*** (4.57)	0.199*** (4.69)	0.207*** (4.90)
Foreign Lic Tech[^]	0.140** (3.11)	0.135** (3.00)	0.141** (3.13)	0.135** (3.02)	0.130** (2.89)	0.136** (3.03)	0.129** (2.89)	0.125** (2.77)	0.129** (2.88)
X[^]	0.176*** (4.74)	0.182*** (4.92)	0.181*** (4.91)	0.178*** (4.82)	0.185*** (5.01)	0.185*** (5.05)	0.178*** (4.82)	0.186*** (5.03)	0.185*** (5.04)
Foreign_K[^]	0.321*** (6.27)	0.313*** (6.13)	0.327*** (6.40)	0.318*** (6.22)	0.307*** (6.02)	0.325*** (6.36)	0.313*** (6.13)	0.303*** (5.95)	0.320*** (6.26)
H_PCA^{^^}	0.143*** (4.37)			0.180*** (5.52)			0.186*** (5.71)		
Training[^]		0.242 (1.60)			0.319* (2.10)			0.293* (1.95)	
Exp. Manager			0.0291*** (5.45)			0.0340*** (6.31)			0.0363*** (6.70)
Fin_PCA^{^^}	0.222*** (6.80)	0.223*** (6.52)	0.246*** (7.60)	0.202*** (7.06)	0.213*** (6.90)	0.229*** (8.18)	0.206*** (7.19)	0.219*** (7.10)	0.233*** (8.38)
Infra_PCA^{^^}	-0.0483** (-3.09)	-0.0468** (-3.01)	-0.0479** (-3.06)	-0.0120 (-0.74)	-0.0122 (-0.75)	-0.0119 (-0.74)			
Generator[^]							0.259* (2.10)	0.190 (1.54)	0.320** (2.58)
ICT_PCA^{^^}	0.151*** (6.50)	0.193*** (9.51)	0.121*** (4.60)	0.139*** (6.02)	0.193*** (9.60)	0.107*** (4.09)	0.144*** (6.21)	0.199*** (9.87)	0.109*** (4.19)
Gov_PCA^{^^}	0.011 (0.72)	0.017 (1.07)	0.0079 (0.50)						
Corruption[^]				1.153*** (5.99)	1.033*** (5.33)	1.157*** (6.00)	1.421*** (6.84)	1.237*** (5.93)	1.479*** (7.09)
CrimPol_PCA^{^^}	0.029 (1.38)	0.020 (0.95)	0.030 (1.40)	0.060** (2.97)	0.049* (2.45)	0.058** (2.87)	0.068*** (3.36)	0.054** (2.71)	0.068*** (3.36)
Comp_PCA^{^^}	0.0545 (1.49)	0.0638* (1.75)	0.0587 (1.61)	0.0165 (0.46)	0.0390 (1.10)	0.0195 (0.55)	0.00921 (0.26)	0.0338 (0.96)	0.0113 (0.32)
Intercept	32.47* (2.28)	17.65 (1.23)	39.50** (2.76)	46.65** (3.23)	26.09* (1.81)	54.15*** (3.74)	56.67*** (3.88)	33.78* (2.33)	67.16*** (4.58)
ProbaCRScale	0,03	0,00	0,77	0,05	0,00	0,72	0,00	0,00	0,12
'e K/e L	0,35	0,37	0,34	0,35	0,36	0,33	0,36	0,37	0,35
R²	0,77	0,77	0,77	0,77	0,77	0,77	0,77	0,77	0,77
Observations	5435	5435	5435	5435	5435	5435	5435	5435	5435

Source: Authors' estimations.

*Note: K: capital (in log); L: labor (in log); Year: year of survey; Age: firm's age (in years) ; Cert: quality certification; Lic: foreign licensed technology; Export: export status; Foreign_K: foreign ownership of capital; Training: training of employees; Exp. Manager: experience of the top manager (in years); Generator: share/own generator; Corruption: gift when inspected; Infra, ICT, H, Fin, Gov, CrimePol, Comp: investment climate (IC) composite indicators (see Annex 2 for their definition). The expected sign of the IC composite indicators is positive. Variables Age, Cert, Lic, Foreign, Export, Training, Exp. Manager, Generator and Corruption are also expected to have a positive coefficient. Regressions contain country, region and sector fixed-effects. Production functions are estimated by a pool OLS. Heteroskedasticity-robust t-students are reported in parentheses. ***, **, *, and ' denote significance at the 0.1%, 1%, 5%, and 10% levels, respectively. ^Binary variable. ^^Aggregated indicator. ^^^Business environment variables are replaced by their prediction before entering the composite indicators. e K: elasticity of capital ; e L: elasticity of labor; CR: constant returns.*

The estimation results of equation (3), with the investment climate composite indicators processed from the predictions of the observed initial variables, are presented in Table 2 for total manufacturing and Table 3 Annex 3 for each sector⁵. Our estimations do not reject the hypothesis that differences in investment climate result in differences in firm productivity. This is true for all aspects of the business environment (see Table 2 and 3). Our results confirm that infrastructure quality (Infra), access to ICT and financing (Fin), skills and expertise of the labor force (H), quality of the relations with the government (Gov) (relative to corruption and regulation in particular), security and political stability (CrimePol) and competition (Comp) are positively linked to firms' performance. This outcome, which is consistent with the theory, makes a contribution to the empirical literature by highlighting, for a larger than usual sample of firms, from a wider than usual variety of industries and countries, the links with a more substantial set of investment climate variables. It is of major importance for developing countries, especially for the lagging economies, whose business environment have proved to be insufficient (see section 3). An improvement of different dimensions of firms' environment would help these economies to catch up with more productive and competitive ones. Another interesting finding relates to the firms' outward orientation which also seems to participate in their performance gap. This is true for the export orientation (Export) which explains the externalities linked to this activity. This result meets with what we know about the manufacturing sector, where external competitive markets are a stimulating source for a high productivity level. The decision to export appears to be another means of stimulating firm productivity, as well as contributing to developing countries' industrial growth and the catch-up process. The same conclusions can be drawn for foreign participation in capital (Foreign) whose significance validates the hypothesis of the benefit of access to foreign knowledge and technology. The role of the 2 other variables related to firms' outward orientation ("quality certification" (Cert) and "foreign license technology" (Lic)) are also validated by the data. This makes of foreign exposure an important factor for firms' competitiveness. This finding is all the more important in the context of globalization faced by the developing world, where outward orientation could contribute to technological catch up, domestic growth, and a better integration into the world market. Looking at the sector-level reveals differences across industries that seem to be affected differently by the various dimensions of the business environment. Agro-Processing would benefit from improvements of all dimensions of the business environment, but competition (Comp), with a special attention to the quality of its labor force (H) and its

⁵ Estimation results when the 2nd surveys' investment climate observations are instrumented with the first ones are not reported here because of space constraints. This set of estimations; which reinforces our findings, is available upon request.

export orientation (Export). The same conclusions can be drawn for Textile, with a higher sensitivity to financing (Fin), infrastructure (Infra) and ICT. Financing (Fin) and human capacity (H) are particularly important to Garment. As for Leather, this sector seems to be more affected by infrastructure (Infra) and financing constraints (Fin), as well as competition (Comp), like the 2 other exporting light industries (Garment and Textile). For heavy industries, although it is more difficult than in the case of light industries to confirm the importance of almost all business environment variables, human capacity (H), ICT, government relation (Gov) (corruption especially) and, with less strength than for light industries, financing constraints (Fin) appear to hinder firm performance. This is not a surprise as these industries need skills and modern communication technologies to operate.

5. CONCLUSION

In this paper, we use advanced econometric techniques to overcome endogeneity and other data limitation issues, when testing the link between firm-level investment climate and productivity. Using predictions of potentially endogenous variables, as well as the time dimension of the WBES database, which is available for a growing number of economies, we make a contribution to the empirical literature by validating this link in a more rigorous way than in previous studies, for more dimensions of the business environment, and on a wider sample of industries and countries. Our results confirm that firms' investment climate represents an important dimension in their performance gap. This finding shows that, in the global economy where technology diffuses rapidly, and capital is mobile, the persistence of firm-level productivity differences between countries can be explained by differences in the business environment. This conclusion is important for developing economies, where the deficiencies of the investment climate can explain why firm-level productivity often lags behind. In addition, our empirical work highlights the productive role of firms' foreign exposure through, in particular, exporting (Export), foreign participation in capital (Foreign), quality certification (Cert), and foreign licensed technology (Lic). A more in-depth analysis reveals interesting differences between industries. Firms in light industries appear to be more sensitive to more dimensions of the business environment: financing (Fin), human capacity (H), infrastructure (Infra), and competition (Comp) in particular. This may be due to the fact that firms in these industries face international competition and need a supportive investment climate to compete efficiently. This fragility requires that particular attention be paid when taking decisions that may affect these sectors. This also means that the payoff of an improvement of the investment climate would be more substantial in these sectors, which could play a greater role in the industrial development and the export capacity of the developing world. This result constitutes an important way to understand the positive impact of investment climate since manufacturing in the developing world faces competition in the world market. As for heavy industries, although less sensitive to fewer dimensions of their environment, they would particularly benefit from an improvement in several of its dimensions: human capacity (H), information and communication technologies (ICT), relation with the government (Gov), corruption (Corr) in particular, and to a lesser extent, financing (Fin). They would also benefit from an increase in their outward orientation. Developing economies are increasingly concerned about improving productivity and competitiveness, because they are experiencing a poor integration into the world economy and the intensifying pressure of globalization. This is particularly true for light industries, in which export specialization is high in the developing world. But heavy industries are also important in the perspective of diversifying the economies. The World Bank Enterprise Surveys (WBES) provide a standard instrument for identifying key obstacles to productivity and so to prioritize policy reforms. This instrument can be used to boost growth and competitiveness, as well as to achieve more technologically advanced and diversified specializations.

These factors should be taken into consideration if developing economies want to face the increasing competition of countries which have successfully developed and diversified their economy. Targeting reforms on those industries and investment climate dimensions which are the most deficient and which most favor productivity could constitute an important element in the strategy of growth and employment for the future.

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APPENDIX

The investment climate composite indicators

The infrastructure indicator (***Infra***) is composed of 4 variables: (***a***) Does the firm experience power shortages? (***b***) Does the firm own or share a generator? Obstacle for the operation of the enterprise caused by deficiencies in (***c***) electricity and (***d***) transport.

The ***ICT*** indicator is composed of 3 variables: Does the Enterprise have access to (***a***) E-mail or (***b***) Internet in its interaction with clients and suppliers? (***c***) Obstacle for the operation of the enterprise caused by deficiencies in Telecommunications.

The human capacity indicator (***H***) is composed of two variables: (***a***) number of years of experience of the top manager. (***b***) Training of the firm's employees.

The financing indicator (***Fin***) is composed of 3 variables: (***a***) Percentage of inputs purchased on credit. (***b***) Access to an overdraft facility. (***c***) Obstacle for the operation of the enterprise caused by the access to Financing.

The government relations indicator (***Gov***) is composed of 8 variables: (***a***) Has the firm been inspected by tax officials? (***b***) Percentage of time spent to deal with government regulations. (***c***) Has a gift been given when inspected by tax officials? Obstacle for the operation of the enterprise caused by (***d***) tax rate, (***e***) tax administration, (***f***) labor regulation, (***g***) business licensing and operating permits and (***h***) corruption.

The security and political stability indicator (***CrimePol***) is composed of 4 variables: (***a***) Is the firms paying to ensure its security? (***b***) Has the firm experimented losses due to robbery? Obstacle for the operation of the enterprise caused by (***c***) crime and (***d***) political instability.

The competition indicator (***Comp***) is composed of 2 variables: (***a***) Is the enterprise's main market local, national, or international? (***b***) Obstacle for the operation of the enterprise caused by the presence of the informal sector.

Table following on the next page

Table A1: List of countries of the Sample

Sub-Sahara Africa	South-Asia	East & South-East Asia	East Europe
Angola (2006 /2010)	Bangladesh (2007 /2013)	Cambodia (2013 /2016)	Albania (2009 /2013)
Botswana (2006 /2010)	Bhutan (2009 /2015)	Indonesia (2009 /2015)	Belarus (2008 /2013)
Burkina Faso (2006 /2009)	Nepal (2009 /2013)	Lao PDR (2009 /2016)	Bulgaria (2009 /2013)
Cameroon (2006 /2009)	Pakistan (2007 /2013)	Mongolia (2009 /2013)	Hungary (2009 /2013)
Congo (2010 /2013)		Philippines (2009 /2015)	Macedonia (2009 /2013)
Ethiopia (2011 /2015)		Timor-Leste (2009 /2015)	Moldova (2009 /2013)
Kenya (2007 /2013)		Vietnam (2009 /2015)	Montenegro (2009 /2013)
Malawi (2009 /2014)			Romania (2009 /2013)
Mali (2007 /2010)			Serbia (2009 /2013)
Nigeria (2007 /2014)			Ukraine (2008 /2013)
Senegal (2007 /2014)			Croatia (2009 /2013)
South Africa (2007 /2014)			Latvia (2009 /2013)
Tanzania (2006 /2013)			Lithuania (2009 /2013)
Uganda (2006 /2013)			Russian Fed (2009 /2012)
			Czech Rep. (2009 /2013)
			Poland (2009 /2013)
			Slovak Rep. (2009 /2013)
			Slovenia (2009 /2013)

Central Asia	Latin America	Middle-East & North-Africa
Armenia (2009 /2013)	Argentina (2006 /2010)	Egypt (2008 /2013)
Azerbaijan (2009 /2013)	Bolivia (2006 /2010)	Morocco (2004 /2007)
Georgia (2008 /2013)	Brazil (2003 /2009)	Yemen (2010 /2013)
Kazakhstan (2009 /2013)	Chile (2006 /2010)	
Kyrgyz Rep (2009 /2013)	Colombia (2006 /2010)	
Tajikistan (2008 /2013)	Ecuador (2006 /2010)	
Turkey (2008 /2013)	El Salvador (2006 /2010)	
Uzbekistan (2008 /2013)	Guatemala (2006 /2010)	
	Honduras (2006 /2010)	
	Mexico (2006 /2010)	
	Nicaragua (2006 /2010)	
	Panama (2006 /2010)	
	Paraguay (2006 /2010)	
	Peru (2006 /2010)	
	Uruguay (2006 /2010)	
	Venezuela (2006 /2010)	

Note: Years of survey are into brackets

*Table 3: Production Function with Predicted Value of Firms' Business Environment ^{^^}
(Dependant Variable: Log of Firms' Value-Added)*

Sectors	Food	Food	Food	Food	Food	Food	Textile	Garment	Leather	Wood Furniture
L	0.742*** (14.33)	0.706*** (12.51)	0.758*** (15.39)	0.723*** (13.49)	0.742*** (13.87)	0.709*** (12.46)	0.746*** (8.61)	0.797*** (15.47)	0.806*** (8.12)	0.981*** (13.58)
K	0.219*** (9.02)	0.219*** (8.98)	0.220*** (9.07)	0.220*** (9.02)	0.221*** (9.12)	0.220*** (9.08)	0.227*** (8.28)	0.215*** (9.82)	0.164*** (5.27)	0.194*** (6.58)
Year	-0.043** (-3.06)	0.052*** (-3.55)	-0.036** (-2.87)	-0.045*** (-3.43)	-0.038** (-2.86)	-0.046*** (-3.43)				
Age								0.004** (2.65)		
QualityCertification[^]	0.204* (2.41)	0.199* (2.36)	0.210* (2.48)	0.206* (2.43)	0.204* (2.41)	0.199* (2.36)	0.219* (2.04)	0.241** (3.17)	0.262* (2.53)	0.381*** (4.26)
Foreign Lic Tech[^]	0.140 (1.49)	0.141 (1.51)	0.141 (1.50)	0.142 (1.52)	0.137 (1.45)	0.137 (1.46)	0.135 (1.24)	0.148 (1.68)	0.105 (0.94)	0.235* (2.14)
X[^]	0.391*** (4.88)	0.384*** (4.81)	0.393*** (4.89)	0.387*** (4.81)	0.386*** (4.83)	0.380*** (4.76)	0.194* (2.28)	0.048* (1.73)	0.307*** (3.35)	0.318*** (3.93)
Foreign_K[^]	0.339*** (3.32)	0.333** (3.28)	0.341*** (3.36)	0.336*** (3.31)	0.336** (3.29)	0.331** (3.24)	0.476*** (3.49)	0.0715 (1.59)	0.423** (2.81)	0.350** (2.89)
Exp. Manager	0.068*** (7.42)	0.07*** (7.65)	0.065*** (6.55)	0.068*** (6.83)	0.064*** (5.73)	0.065*** (5.87)	0.026 (1.60)	0.056*** (4.66)	0.049* (2.11)	0.024 (1.63)
Fin_PCA^{^^}	0.291*** (3.73)	0.281*** (3.68)	0.310*** (4.33)	0.302*** (4.32)	0.325*** (4.66)	0.316*** (4.70)	0.469*** (5.52)	0.500*** (8.24)	0.459*** (5.05)	0.348*** (4.40)
Infra_PCA^{^^}	0.095** (2.76)		0.095** (2.74)		0.085* (2.49)					
Generator[^]		0.625** (2.82)		0.613** (2.76)		0.560** (2.58)	1.238** (3.20)	0.363 (1.50)	1.517* (2.58)	0.374 (1.10)
ICT_PCA^{^^}	0.106* (1.69)	0.106* (1.69)								
E-mail[^]			0.387 (1.57)	0.370 (1.50)					-0.328 (-0.65)	0.816* (2.55)
Web[^]					0.384 (1.36)	0.395 (1.41)	1.244** (3.00)	0.695* (2.24)		
Corruption[^]	1.14* (2.34)	1.19* (2.38)	1.07* (2.21)	1.11* (2.26)	1.06* (2.20)	1.11* (2.24)	1.42* (2.51)	1.01** (2.63)	-0.92 (-0.85)	2.95*** (4.86)
CrimPol_PCA^{^^}	0.286*** (3.83)	0.259*** (3.54)	0.281*** (3.78)	0.252*** (3.47)	0.264*** (3.64)	0.240*** (3.37)				
Roberies[^]							1.242** (2.96)	0.46 (1.49)	-0.40 (-0.53)	0.719* (1.90)
Comp_PCA^{^^}										
Market Size[^]							1.124** (3.10)	0.902*** (3.30)	1.521*** (3.67)	1.203*** (3.94)
Intercept	91.8** (3.26)	109.5*** (3.75)	77.7** (3.10)	94.5*** (3.65)	80.9** (3.08)	97.0*** (3.64)	3.9*** (5.73)	5.6*** (11.08)	7.6*** (8.97)	2.2** (3.15)
Proba CRScale	0.38	0.13	0.58	0.21	0.42	0.16	0.72	0.83	0.76	0.01
'e K/e L	0.30	0.31	0.29	0.30	0.30	0.31	0.30	0.27	0.20	0.20
R²	0.76	0.76	0.76	0.76	0.76	0.76	0.78	0.82	0.83	0.84
Observations	1542	1542	1542	1542	1542	1542	858	1273	540	834

*Table-3- Production Function with Predicted Value of Firms' Business Environment ^{^^}
(Dependant Variable: Log of Firms' Value-Added)*

Sectors	Rubber Plastic	Chemicals Petroleum	NonMetal BasicMetal	Metal Products	Machinery	Transport	Manuf Tot	Manuf Tot	Manuf Tot
L	0.836*** (12.06)	0.729*** (13.12)	0.763*** (10.35)	0.901*** (12.39)	0.917*** (14.80)	0.960*** (11.94)	0.714*** (26.96)	0.736*** (26.75)	0.719*** (25.18)
K	0.190*** (7.14)	0.186*** (9.08)	0.209*** (7.61)	0.196*** (6.61)	0.137*** (4.00)	0.126*** (4.78)	0.247*** (20.08)	0.250*** (20.19)	0.252*** (20.56)
Year							-0.031*** (-4.18)	-0.019* (-2.47)	-0.021** (-2.69)
Age			-0.004* (-2.22)				0.001 (1.35)	0.001 (1.39)	0.001 (1.16)
QualityCertification[^]	0.399*** (4.22)	0.127* (1.82)	0.308** (3.21)	0.197* (2.18)	0.314*** (3.75)	0.280** (3.09)	0.207*** (4.90)	0.216*** (5.09)	0.207*** (4.87)
Foreign Lic Tech[^]	0.249* (2.25)	0.0405 (0.48)	0.238* (2.19)	0.128 (1.28)	0.189* (2.07)	0.166 (1.61)	0.129** (2.88)	0.140** (3.13)	0.137** (3.04)
X[^]	0.206* (2.30)	0.360*** (5.19)	-0.0878 (-0.95)	0.0701 (0.88)	0.229** (3.20)	0.217** (2.67)	0.185*** (5.04)	0.190*** (5.17)	0.186*** (5.08)
Foreign_K[^]	0.479*** (3.61)	0.421*** (4.49)	0.552*** (4.44)	0.297* (2.42)	0.445*** (3.53)	0.535*** (3.55)	0.320*** (6.26)	0.291*** (5.74)	0.293*** (5.78)
Exp. Manager	0.038* (2.03)	0.03* (2.42)	0.065*** (4.43)	0.053** (3.20)	0.024* (1.85)	0.052* (2.51)	0.036*** (6.70)	0.038*** (7.84)	0.038*** (6.86)
Fin_PCA^{^^}	0.298** (2.76)	0.353*** (6.30)	0.306* (2.75)	0.0542 (0.52)	0.360*** (6.20)	0.214** (2.75)	0.233*** (8.38)	0.276*** (10.47)	0.276*** (10.38)
Infra_PCA^{^^}									
Generator[^]	-0.501 (-1.28)	1.146*** (3.63)	0.644* (1.81)	0.552 (1.20)	-0.200 (-0.63)	1.175** (2.82)	0.320** (2.58)	0.290* (2.24)	0.250* (1.96)
ICT_PCA^{^^}			0.215** (2.66)			0.156* (2.01)	0.109*** (4.19)		
E-mail[^]	1.437** (3.01)	0.482 (1.33)		1.191** (3.06)	0.462 (1.02)			0.322** (2.80)	
Web[^]									0.355* (2.43)
Corruption[^]	1.917** (2.60)	2.149** (3.17)	1.173* (1.90)	2.419*** (4.62)	3.144*** (3.78)	5.65* (2.37)	1.479*** (7.09)	1.314*** (6.67)	1.289*** (6.37)
CrimPol_PCA^{^^}		0.120* (2.26)					0.0683*** (3.36)		
Roberies[^]	0.597 (1.13)			0.888* (1.95)		3.079** (2.88)		0.065 (0.45)	-0.005 (-0.03)
Comp_PCA^{^^}	-0.091 (-1.08)		0.177 (1.57)				0.011 (0.32)		
Market Size[^]						0.837* (1.73)		0.128 (0.83)	0.120 (0.75)
Intercept	3.87*** (4.19)	5.36*** (7.08)	6.21*** (8.13)	2.96*** (3.63)	4.55*** (5.05)	-1.07 (-0.42)	67.2*** (4.58)	43.2** (2.84)	47.2** (3.08)
ProbaCRScale	0,68	0,85	0,66	0,16	0,27	0,24	0,10	0,57	0,24
'e K/ e L	0,23	0,26	0,27	0,22	0,15	0,13	0,35	0,34	0,35
R²	0,80	0,80	0,81	0,80	0,81	0,85	0,74	0,77	
Observations	660	948	744	714	691	485	5435	5484	5484

Source: Authors' estimations. For Table 6a and 6b.

*Note: K: capital (in log); L: labor (in log); Year: year of survey; Age: firm's age (in years) ; Cert: quality certification; Lic: foreign licensed technology; Export: export status; Foreign_K: foreign ownership of capital; Exp. Manager: experience of the top manager (in years); Generator: share/own generator; E-mail & Web: access to e-mail and internet; Corruption^: gift when inspected; Roberies: losses due to robberies; Market Size: local, national or international; Infra, ICT, H, Fin, Gov, CrimePol, Comp: investment climate (IC) composite indicators (see Annex 2 for their definition). The expected sign of the IC composite indicators is positive). Variables Age, Cert, Lic, Foreign, Export, Training, Exp. Manager, Generator and Corruption are also expected to have a positive coefficient. Regressions contain country, region and sector fixed-effects. Production functions are estimated by a pool OLS Heteroskedasticity-robust t-students are reported in parentheses. ***, **, *, and ' denote significance at the 0.1%, 1%, 5%, and 10% levels, respectively. ^Binary variable. ^^Aggregated indicator. ^^^Business environment variables are replaced by their prediction before entering the composite indicators. e K: elasticity of capital ; e L: elasticity of labor; CR: constant returns.*



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